DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 226

[Docket No: 231120–0274]

RIN 0648–BJ52

Endangered and Threatened Species; Designation of Critical Habitat for Five Species of Threatened Indo-Pacific Corals

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; withdrawal and reproposal; request for comments.

SUMMARY: On November 27, 2020, we, NMFS, published in the **Federal Register** a proposal to designate 17 island units of critical habitat in the Pacific Islands Region for 7 Indo-Pacific coral species listed under the Endangered Species Act (ESA). Based on public comments and new information regarding the interpretation of the records of the listed corals and application to critical habitat, a substantial revision of the proposed rule is warranted. Accordingly, we are withdrawing the 2020 proposed rule and publishing this new proposed rule. We propose to designate critical habitat for five of the seven coral species that were addressed in the 2020 proposed rule: *Acropora globiceps, Acropora retusa, Acropora speciosa, Euphyllia paradivisa,* and *Isopora crateriformis.* Proposed critical habitat includes 16 island units encompassing approximately 251 square kilometers ((km²); 97 square miles (mi²)) of marine habitat. Several areas are ineligible for critical habitat because of final Department of Defense Integrated Natural Resource Management Plans that we have determined will benefit the listed corals. We have considered economic, national security, and other relevant impacts of the proposed designations, but are not proposing to exclude any areas from the critical habitat designations due to anticipated impacts.

DATES: Comments on this proposal must be received by February 28, 2024.

Public hearings: Public hearings on this proposed rule will be held during the public comment period at dates, times and locations to be announced in a forthcoming **Federal Register** Notice.

ADDRESSES: You may submit comments on this document, identified by the FDMS docket number NOAA–NMFS–2016–0131, by any of the following methods:

- *Electronic Submission:* Submit all electronic public comments via the Federal e-Rulemaking Portal. Go to *https://www.regulations.gov* and type NOAA–NMFS–2016–0131 in the Search box (*note:* copying and pasting the FDMS Docket Number directly from this document may not yield search results). Click on the ''Comment'' icon, complete the required fields, and enter or attach your comments.
- *Mail:* Lance Smith, Protected Resources Division, NMFS, Pacific Islands Regional Office, NOAA Inouye Regional Center, 1845 Wasp Blvd., Bldg. 176, Honolulu, HI 96818.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *https://www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, *etc.*), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

FOR FURTHER INFORMATION CONTACT: Lance Smith, NMFS, Pacific Islands Regional Office (PIRO), 808–725–5131, *lance.smith@noaa.gov;* or, Celeste Stout, NMFS, Office of Protected Resources, 301–427–8436, *celeste.stout@noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

We listed 20 reef coral species as threatened under the ESA on September 10, 2014 (79 FR 53851), 15 of which occur in the Indo-Pacific. The remaining five species occur in the Caribbean. On November 27, 2020, we proposed critical habitat for the seven listed Indo-Pacific species that were then considered to occur within U.S. jurisdiction (85 FR 76262) and the five listed Caribbean species (85 FR 76302). All 20 of these listed coral species have undergone some level of population decline and are susceptible to multiple threats, including ocean warming, diseases, ocean acidification, ecological effects of fishing, and land-based sources of pollution. We determined that these species are likely to become endangered throughout their ranges within the foreseeable future as a result of a combination of threats, the most severe of which are related to climate change.

On November 27, 2020, NMFS proposed to designate critical habitat for the seven listed Indo-Pacific corals that were then considered to occur within U.S. jurisdiction (*Acropora globiceps, Acropora jacquelineae, Acropora retusa, Acropora speciosa, Euphyllia paradivisa, Isopora crateriformis,* and *Seriatopora aculeata*) and opened a public comment period (85 FR 76262). In response to multiple requests from the public, the initial 60-day public comment period was extended three times, with the last extension ending on May 26, 2021. Two virtual public hearings were held in January 2021. Approximately 80 public comments were received on the proposed rule.

The coral critical habitat proposed for designation in 2020 (the ''2020 proposed rule'') consisted of substrate and water column habitat characteristics essential for the reproduction, recruitment, growth, and maturation of the seven listed coral species. A total of 17 areas or ''units'' were proposed to be designated as critical habitat, including 4 units in American Samoa (Tutuila and Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll), 1 unit in Guam, 7 units in the Commonwealth of the Northern Mariana Islands (CNMI; Rota, Aguijan, Tinian, Saipan, Anatahan, Pagan, Maug), and 5 units in the Pacific Remote Islands Areas (PRIA; Howland, Palmyra Atoll, Kingman Reef, Johnston Atoll, Jarvis). Based on the best available information at that time, between 1 and 6 listed coral species were thought to occur within each of these 17 units. Several other areas were also found to be either ineligible for designation as critical habitat, or were proposed to be excluded from the designation due to national security impacts. These areas included the following: A complex of overlapping Navy Surface Danger Zones off of Ritidian Point in Guam, other parts of Guam, parts of Tinian in CNMI, a group of six Navy anchorage berths on Garapan Bank in Saipan in CNMI, all of Farallon de Medinilla in CNMI, and all of Wake Atoll in PRIA.

The ESA defines critical habitat under section 3(5)(A) as the (1) specific areas within the geographical area occupied by the species at the time it is listed, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary of Commerce (Secretary) that such areas are essential for the conservation of the species (16 U.S.C. 1532(5)(A)). Conservation is defined in

section 3(3) of the ESA as to use, and the use of, all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary (16 U.S.C. 1532(3)). Section 3(5)(C) of the ESA provides that, except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species. ESA implementing regulations provide that critical habitat shall not be designated within foreign countries or in other areas outside U.S. jurisdiction (50 CFR 424.12(g)).

Section 4(a)(3)(B)(i) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD) or designated for its use, that are subject to an Integrated Natural Resources Management Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is designated. Section 4(b)(2) of the ESA requires us to designate critical habitat for threatened and endangered species on the basis of the best scientific data available and after taking into consideration the economic, national security, and any other relevant impact, of specifying any particular area as critical habitat. Pursuant to this section, the Secretary may exclude any area from critical habitat if she determines the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat. However, the Secretary cannot exclude areas if failure to designate them as critical habitat will result in the extinction of the species (16 U.S.C. 1533(b)(2)).

Once critical habitat is designated, section 7(a)(2) of the ESA requires Federal agencies to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify that habitat (16 U.S.C. 1536(a)(2)). This requirement is in addition to the section 7(a)(2) requirement that Federal agencies ensure their actions are not likely to jeopardize the continued existence of ESA-listed species. Specifying the geographic location of critical habitat also facilitates implementation of section 7(a)(1) of the ESA by identifying areas where Federal agencies can focus their conservation programs and use their authorities to further the purposes of the ESA. Critical habitat requirements do not apply to citizens engaged in actions on private land that do not involve a Federal agency. The requirements of section 7(a)(2) to not destroy or adversely modify critical habitat apply only to Federal agencies and do not apply to non-Federal entities on non-Federal land or within non-Federal waters in the absence of a Federal nexus (*e.g.* Federal funding, Federal permit). However, designating critical habitat can help focus the efforts of other conservation partners (*e.g.,* state and local governments, individuals, and non-governmental organizations).

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the ESA section 4 implementing regulations that were revised or added to 50 CFR part 424 in 2019 (''2019 regulations,'' see 84 FR 45020, August 27, 2019) without making a finding on the merits. On September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court's July 5 order (*Wash. Cattlemen's Ass'n,* No. 22–70194, 2022 WL 4393033). On November 14, 2022, the Northern District of California issued an order granting the government's request for voluntary remand without vacating the 2019 regulations. The District Court issued a slightly amended order two days later on November 16, 2022 (*Ctr. for Biological Diversity* v. *Haaland,* No. 19–cv–05206–JST, 2022 WL 19975245). As a result, the 2019 regulations remain in effect, and we are applying the 2019 regulations here. We also note that, on June 22, 2023, our agency in coordination with the Department of Interior jointly published proposed revisions to the ESA section 4 regulations (88 FR 40764). For purposes of this determination and in an abundance of caution, we considered whether the analysis or its conclusions would be any different under the current, pre-2019, and recently proposed regulations. We have determined that while the analysis differs in some ways, the conclusions presented here would not be any different. We will consider any changes to the section 4 regulations, as appropriate, should they be finalized and become effective prior to completion of a final critical habitat determination.

In this rulemaking, the terms ''occupied area,'' ''specific area,'' and ''critical habitat unit'' each have distinct meanings. The terms ''occupied area'' and ''specific area'' are species-specific, whereas the term ''critical habitat unit'' is not species-specific. The term ''occupied area'' is consistent with the definition of the ''geographical area occupied by the species'' in 50 CFR 424.02 and refers to the area that may generally be delineated around species' occurrences at the time of listing, as determined by the Secretary—*i.e.,* range. Within each occupied area, ''specific areas'' are the areas containing the essential feature of critical habitat for the species. We use the term ''critical habitat unit'' to refer to the cumulative specific areas for one or more species around the 16 islands proposed for designation. Critical habitat units are named according to the particular island or offshore bank around, or on which, the coral habitat is located. For example, overlapping occupied areas for five listed coral species occur around Tutuila Island and its offshore banks, which is thus named the Tutuila and Offshore Banks Unit of coral critical habitat.

Rationale for Withdrawing 2020 Proposed Rule

We evaluated the comments and information received during the public comment period and at the public hearings that were held for the 2020 proposed rule, as well as other new information that has become available, as described in the Critical Habitat Information Report for this proposed rule (NMFS, 2023) and its appendices. Based on our consideration of the comments and information, a substantial revision of the 2020 proposed rule is needed for three main reasons:

1. The initial methodology used to compile existing records of listed coral species in U.S. waters was not exhaustive, resulting in the inadvertent exclusion of some islands within the occupied area for some listed species that should have been included as occupied areas.

2. The initial methodology used to determine which U.S. islands were within the occupied area for each listed coral species at the time of listing (2014) was too simplistic, resulting in the inadvertent inclusion of some islands in the occupied area for some listed species that should not have been included.

3. The initial methodology used to determine the depth range of each listed species on each island within its occupied area used incorrect assumptions, resulting in inaccurate depth ranges for some species in some locations (*i.e.,* some depth ranges were larger than they should have been).

With regard to the compilation of records of listed coral species in U.S. waters, in developing the 2020 proposed rule, we relied on Federal coral reef monitoring programs as the only source of records used for most of the remote

islands. However, as pointed out in the public comments and also as indicated by new information, other records exist for some islands. Specifically, several sources of photo records and expert data records have been published or shared since the 2020 proposed rule published, and some previously unused historical photo records were found to have been mislabeled with the names of unlisted species. As a result, numerous existing records that were not considered in the 2020 proposed rule, including some that provide the only records of any listed coral species on some islands, were considered in developing this proposed rule.

With regard to determining the occupied area within U.S. jurisdiction for each listed coral species for the 2020 proposed rule, we assumed that any expert record of a listed coral species was adequate to conclude that the island was within the occupied area for that species at the time of listing. However, as pointed out in the public comments and also as indicated by new information, for those islands with very few records for a listed coral species, such records may not provide adequate evidence that the island was within the occupied area of the listed species at the time of listing. There are several potential reasons for this, including species misidentifications, old records of species that were no longer present at the time of listing, and the likelihood that a single record of a colony of a listed species represents a vagrant individual. For example, only a single colony of the listed coral *Acropora jacquelineae* has ever been recorded in U.S. waters on Tutuila, an island that has been frequently surveyed by coral experts since that single colony was recorded in 2008, and that record was used as the basis for including *A. jacquelineae* in the 2020 proposed rule. However, as indicated in the public comments and by new information, that record likely represents a vagrant individual of *A. jacquelineae,* and thus Tutuila should not be considered as being occupied by the species at the time of listing. Therefore, the mere existence of an expert record of a listed coral from an island is not necessarily adequate to support a conclusion that the area was within the occupied area of the species at the time of listing.

With regard to the species' depth ranges applied in the 2020 proposed rule, we assumed that the depth range of a listed coral species shown by the records from an extensively surveyed island was similarly representative of that species' depth range on other islands. For example, since the records of *A. globiceps* from Tutuila showed a depth range of 0–20 m on that island, we assumed that the species' depth range was 0–20 m in other locations where we lacked depth distribution data, including islands within (*e.g.,* Rose Atoll) and outside (*e.g.,* Guam) the Samoan Archipelago. However, as indicated in the public comments and by new information, the depth range of a listed coral species can vary from island to island, especially between archipelagos. For example, surveys that became available or were conducted since the 2020 proposed rule between 10 and 20 m on both Tutuila and Guam indicate that *A. globiceps* is commonly found to 20 m on Tutuila in the Samoan Islands but only to 12 m on Guam in the Mariana Islands.

In order to address these issues with the 2020 proposed rule, a systematic methodology was developed and implemented for compilation, assessment, and interpretation of the records of each listed coral species in order to determine its occupied area within U.S. waters at the time of listing in 2014 (*i.e.,* which islands) as well as the depth range of each species on each of those islands. This new methodology resulted in significant changes to the occupied area (*i.e.,* which islands are included or not), as well as depth ranges of critical habitat for most listed coral species. Ultimately, these changes altered which species are considered to occupy areas within U.S. jurisdiction and the location and boundaries of the areas proposed for designation. Specifically, two species included in the 2020 proposed rule, *Acropora jacquelineae* and *Seriatopora aculeata,* are no longer considered to have occupied areas within U.S. jurisdiction at the time of listing, and we cannot designate critical habitat in areas outside U.S. jurisdictions (50 CFR 424.12(g)). In addition, some new areas are being proposed that were not included in the 2020 proposed rule (Alamagan and Uracas in CNMI, French Frigate Shoals in Hawaii). Given these multiple, substantial changes, we concluded it was necessary to withdraw the 2020 proposed rule and publish this proposed rule to provide the public an opportunity to comment on the new methodology and the different areas being proposed as critical habitat.

New Methodology for Determining Occupied Areas and Depth Ranges

The determinations of the occupied areas and depth ranges that inform critical habitat are based on the records of each listed coral species within U.S. waters. However, using the records for critical habitat requires overcoming three major challenges: (1) Finding all the records (compilation); (2) accounting for the high variability in the quality, quantity, age, species identification uncertainty, survey effort, and other factors associated with the records (assessment); and (3) interpreting the records to determine which islands are within the occupied area for each listed species and thus should be included in critical habitat (application). In order to address these challenges and ensure that coral critical habitat is based on the best available information, we conducted exhaustive searches to compile all the available records for each listed coral species around each island within U.S. Pacific Islands jurisdictions, and developed a consistent and transparent methodology for assessing and applying the records. The results are provided in appendix A of the Information Report (NMFS, 2023), hereafter referred to as the Records Document, and provide the foundation for this new proposed rule. The compilation, assessment, and application of the records are summarized from the Records Document below.

Compilation of Records

We compiled the available records for each listed coral species around each island within U.S. Pacific Islands waters via the following steps: (1) Reviewed all relevant NOAA Fisheries files, such as those used for the final coral listing rule and 2020 proposed critical habitat; (2) gathered records from government agencies that have conducted coral reef monitoring within these areas; (3) gathered records from other sources such as research projects, site surveys, area inventories, etc.; (4) conducted an exhaustive virtual search; and (5) consulted with experts from the Territorial Governments (American Samoa, Guam, CNMI) and the Marine National Monuments (Rose Atoll, Pacific Remote Islands, Marianas Trench) to ensure that no records were overlooked. Some of these records were brought to our attention by the public comments that we received during the public comment period in 2021. The search produced records of seven listed coral species (*A. globiceps, A. jacquelineae, A. retusa, A. speciosa, E. paradivisa, I. crateriformis,* and *S. aculeata*) from U.S. Pacific Islands waters (NMFS, 2023, appendix A). This comprehensive compilation process yielded more than twice as many records as were used for the 2020 proposed rule, including historical records that we were unaware of in 2020 as well as new data collected since then.

The records were divided into 45 records groups by island and species.

Throughout this proposed rule and in the supporting documents, we refer to high islands (volcanic, *e.g.,* Guam), atolls (*e.g.,* Rose Atoll), stand-alone reefs (*e.g.,* Kingman Reef), shoals (*e.g.,* French Frigate Shoals (FFS)), and pinnacles (*e.g.,* Gardner Pinnacles) as ''islands.'' The 45 records groups included a total of 24 such islands, 4 of which were in American Samoa (Tutuila and Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll), 1 in Guam (Guam), 9 in CNMI (Rota, Aguijan, Tinian, Saipan, Farallon de Medinilla (FDM), Alamagan, Pagan, Maug Islands, Uracas), 7 in PRIA (Howland, Baker, Palmyra Atoll, Kingman Reef, Johnston Atoll, Wake Atoll, Jarvis), and 3 in the Northwestern Hawaiian Islands (FFS, Maro Reef, Gardner Pinnacles) in Hawaii, as shown in table 2 of appendix A. We found no records of any listed species in any of the Main Hawaiian Islands (NMFS, 2023, appendix A).

Assessment of Records

We assessed each of the 45 records groups (*i.e.,* all records of a listed species from an island) in terms of the multiple factors, including (1) quality of records, (2) quantity of records, (3) age of records, (4) species identification uncertainty, and (5) survey effort. We addressed the quality of records by organizing the records into three mutually-exclusive categories: ''photo records,'' ''expert data records,'' or ''other records.'' Because of species identification uncertainty, photo records are ideal, as long as the location and date of the photo are known, and the photo clearly shows colony and branch morphology. However, many records of coral species are in the form of data sheets or species lists, and lack photos. Any such record collected by a recognized Indo-Pacific reef-building coral species expert is considered an expert data record. Records that do not meet the criteria for photo records or expert data records are considered other records (*e.g.,* personal communications). We confirmed all records via direct communication with the experts who took the records, or with experts who were able to vouch for the records. Our determinations of whether the island was within the occupied area for a listed species at the time of listing relied almost entirely upon photo records and expert data records. However, other records provided valuable information for some islands or parts thereof. For example, records that do not meet the criteria for photo or expert data records (*i.e.,* exact dates and locations not available) provide information on depth and habitat distributions (NMFS, 2023, appendix A).

Although we did not specify a particular quantity of records necessary to support a determination that a particular island was within the occupied area for a listed species at the time of listing, the more photo records and expert data records we have for a species from an island, the greater the likelihood that the island was within the occupied area for a listed species at the time of listing. Islands with a single photo record or expert data record of a listed species may or may not have been within the occupied area of that species at the time of listing (2014), depending on other factors (NMFS, 2023, appendix A).

Older records are not necessarily lower quality, thus age of records was not a consideration for determining the quality of a record. However, the more that a record predates listing, the less relevance it had to our determination of whether the island was within the occupied area for a listed species at the time of listing (NMFS, 2023, appendix A).

Species identification uncertainty is substantial for most of the 15 listed Indo-Pacific reef coral species, even for experts. For listed coral species that are consistently distinct from similar species and frequently observed, species identification uncertainty has decreased since listing, as survey effort and expertise have increased. This is the case with *A. globiceps* and *I. crateriformis.* In addition, *E. paradivisa* and *S. aculeata* are consistently distinct from similar species, although they are very infrequently observed within U.S. waters. For these four listed species, identification uncertainty is relatively low at this point in time for coral species experts based in the U.S. Pacific Islands. In contrast, for listed species that are very similar to other species, the increase in survey effort since listing in 2014 has emphasized the difficulty in distinguishing them. This is the case with *A. retusa,* especially in the Marianas and PRIA. The combination of high colony morphological variability and low numbers of records from the Marianas (*i.e.,* Guam and CNMI) and PRIA is such that we have low confidence in these records, even though they are expert data records. Even more challenging are those listed species that are very similar to other species but are very infrequently observed, such as *A. jacquelineae* and *A. speciosa.* For these three listed species, identification uncertainty is relatively high at this point in time, even for coral species experts who focus on the U.S. Pacific Islands (NMFS, 2023, appendix A).

A particular species identification uncertainty problem is the apparent variability in colony morphology of *A. retusa* and related species between the American Samoa, Guam-CNMI, and PRIA archipelagos. The combination of high colony morphological variability and low numbers of records in Guam-CNMI and PRIA is such that we have low confidence in these records, even though they are expert data records. However, in American Samoa, there is apparently lower colony morphological variability and higher numbers of records for *A. retusa,* thus we have high confidence in these records.

Survey effort refers to the amount of expert coral species surveys that have been conducted on an island. Historical survey effort has been highly variable from island to island, potentially influencing the interpretation of the records. However, all islands in this document except FDM in CNMI have been included in the Pacific Islands Fisheries Science Center's (PIFSC) species-level standardized coral reef monitoring surveys at least one time since listing in 2014, and some islands have also been included in standardized surveys by other agencies. PIFSC's surveys are quite extensive around each island, including a large number of transects and covering wide depth ranges (appendix A). The Department of the Navy (DON) restricts access to FDM, hence PIFSC does not survey there. However, the Navy periodically conducts species-level coral surveys at FDM by recognized Indo-Pacific reef-building coral species experts, thus numerous surveys have been conducted on FDM both around and since the time of listing. All islands have been subject to extensive species-level surveys (*i.e.,* the PIFSC and DON surveys) around or since the time of listing, including within the depth ranges and habitat types of all listed coral species (NMFS, 2023, appendix A).

Several other factors were taken into consideration in assessing the records, including taxonomic issues, morphological variability across archipelagos, and habitat preferences. Taxonomic issues include confusion of *A. globiceps* with *A. humilis,* and the name change from *Acropora crateriformis* to *Isopora crateriformis,* both of which affected how we treated historical records. Finally, some types of coral reef habitats are surveyed more than others, mainly because of accessibility and safety. Of the surveys that produced the records in this document, the majority took place on forereefs (AKA reef slopes) between about 5 and 20 m of depth, and some surveys included reef slopes of 20–30 m

depth. Fewer surveys were done in backreef habitats, such as pools, lagoons, and reef flats, raising the possibility that the records may not be representative of species' distributions across habitats. However, for some of the more frequently surveyed islands, habitat-specific information is available, as noted in the species-island sections (NMFS, 2023, appendix A).

Based on the assessment factors, we developed a 10-category system for rating the level of evidence provided by each records group (*i.e.,* all records of a listed species from an island) that the island was within the occupied area for the listed species at the time of listing in 2014, from the least to the most evidence (table 1). Then we interpreted the rating results of each records group to determine whether the island was within the occupied area for the listed species at the time of listing, and thus should be included in critical habitat. For islands within the occupied area of a listed species, we also used the records to determine the depth range of that species on the island.

TABLE 1—RATING SYSTEM FOR EVIDENCE PROVIDED BY EACH OF THE RECORDS GROUPS THAT THE ISLAND WAS WITHIN THE OCCUPIED AREA FOR THE LISTED SPECIES AT THE TIME OF LISTING IN 2014, AND THE RESULTING RATINGS OF THE 45 RECORDS GROUPS

[NMFS, 2023, appendix A, tables 1 and 2]

Rating	Species ID uncertainty	Evidence category for records groups	Ratings results for the 45 records groups
1	High	Up to a few pre-listing photo or expert data records are available, but no post-listing records are available.	10 records groups: *A. jacquelineae* from Tutuila; *A. retusa* from Ta'u, Guam, Rota, Tinian, Howland, Kingman Reef, and Johnston Atoll; and *A. speciosa* from Guam and Kingman Reef.
2	Low	″ ″ ″	7 records groups: *A. globiceps* from Howland, Baker, Kingman Reef, Maro Reef, and Gardner Pinnacles; and *S. aculeata* from Guam and Saipan.
3	High	Up to a few post-listing photo or expert data records are available, but post-listing standardized monitoring surveys have not detected colonies.	1 records group: *A. retusa* from Jarvis.
4	Low	″ ″ ″	2 records groups: *A. globiceps* from Alamagan and Uracas.
5	High	More than a few post-listing photo or expert data records are available, but post-listing standardized monitoring surveys have not detected colonies.	2 records groups: *A. retusa* from Wake Atoll; and *A. speciosa* from Tutuila.
6	Low	″ ″ ″	7 records groups: *A. globiceps* from Ta'u, Rose Atoll, FDM, Palmyra Atoll, Johnston Atoll, and FFS; and *E. paradivisa* from Tutuila.
7	High	More than a few post-listing photo or expert data records are available, and post-listing standardized monitoring surveys have detected colonies.	1 records group: *A. retusa* from Ofu-Olosega.
8	Low	″ ″ ″	6 records groups: *A. globiceps* from Ofu-Olosega, Aguijan, Pagan, Maug Islands, and Wake Atoll; and *I. crateriformis* from Ta'u.
9	High	At least dozens of post-listing photo and expert data records are available, and post-listing standardized monitoring surveys have detected colonies at multiple sites over multiple years.	2 records groups: *A. retusa* from Tutuila and Rose Atoll.
10	Low	″ ″ ″	7 records groups: *A. globiceps* from Tutuila, Guam, Rota, Tinian, and Saipan; and *I. crateriformis* from Tutuila and Ofu-Olosega.

We interpreted the ratings of the records groups in terms of the likelihood that the island was within the occupied area for the listed species at the time of listing in 2014. We considered record groups with ratings of 1–3 as providing inadequate evidence that the island was within the occupied area for the listed species at the time of listing. Eighteen of the 45 records groups were rated as 1–3 (table 1). The rationales for why these records groups provide inadequate evidence for the species being within the occupied area at the time of listing are summarized below from the Records Document (NMFS, 2023, appendix A).

One *A. jacquelineae* records group was rated as 1 (Tutuila), a species with high species identification uncertainty even for trained experts. This record consists of photos of a single colony of *A. jacquelineae* on Tutuila taken in 2008. Since then, hundreds of expert surveys have been conducted on Tutuila within the habitat and depth range of the species, including at the location of the original record, but no other records have been documented. The regulatory definition of an occupied area does not include habitats used solely by vagrant individuals (*i.e.,* waifs). Waifs are a single individual or small group of individuals found outside of its normal range, presumably advected by unusual currents or weather conditions (Johnson *et al.,* 2000), which are common among reef corals (Turak and DeVantier, 2019). Based on the fact that no other colonies of *A. jacquelineae* have been observed before or since 2008 on Tutuila despite extensive expert surveys, there is considerable likelihood that the single observed colony of *A. jacquelineae* on Tutuila was a waif colony. Since occupied areas do not include habitats used solely by vagrant individuals (*i.e.,* waifs), this record provides inadequate evidence that Tutuila was within the occupied area of *A. jacquelineae* at the time of listing in 2014 (NMFS, 2023, appendix A).

Seven *A. retusa* records groups were rated as 1 (Ta'u, Guam, Rota, Tinian, Howland, Kingman Reef, Johnston Atoll), a species with high species identification uncertainty even for trained experts. All seven records groups consist of one or two records collected at least several years before listing (2004—2010). Five of the records groups each consist of one or two photo records that all appear to be of closely-related but undescribed species. The other two records groups (Ta'u, Rota) each consist of a single expert data record but because of species identification uncertainty and lack of photos, identifications could not be confirmed. Because these records groups each consist of only one or two ambiguous records collected at least several years before listing, and expert surveys of all seven islands since listing have not recorded any *A. retusa*

colonies, these records groups provide inadequate evidence that any of the seven islands were within the occupied area of *A. retusa* at the time of listing in 2014 (NMFS, 2023, appendix A).

Two *A. speciosa* records groups were rated as 1 (Guam, Kingman Reef), a species with high species identification uncertainty even for trained experts. The Guam records group consists of several photos of a single colony in Apra Harbor of Guam taken in 2010. Definitive species identification requires examination of a skeletal sample, but no sample was taken. Many subsequent expert dives and surveys were conducted in the area in the following years, but neither the original colony nor any other colonies resembling *A. speciosa* were recorded. The Kingman Reef records group consists of a single expert data record collected between 2004 and 2006 with no photos or skeletal sample. Because these records groups each consist of only a single ambiguous colony recorded at least several years before listing, and expert surveys of both islands since listing have not recorded any *A. speciosa* colonies, these records groups provide inadequate evidence that either island was within the occupied area of *A. speciosa* at the time of listing in 2014 (NMFS, 2023, appendix A).

Five *A. globiceps* records were groups rated as 2 (Howland, Baker, Kingman Reef, Maro Reef, Gardner Pinnacles), a species with low species identification uncertainty for trained experts. All five records groups consist of one or two photo records collected at least several years before listing (2000–2006). The three records groups from PRIA (Howland, Baker, Kingman Reef) each consist of one or two photo records taken between 2004 and 2006 and identified by an expert at that time but that are clearly not *A. globiceps,* and thus provide no evidence that these three islands were within the occupied area of *A. globiceps* at the time of listing in 2014. The two records groups from NWHI (Maro Reef, Gardner Pinnacles) are a photo of a single colony from 2004 (Maro Reef) and photos of a group of colonies in close proximity from 2000 (Gardner Pinnacles). Because these records groups each consist of only a single colony or group of colonies (*i.e.,* likely clones) collected many years before listing, multiple expert surveys conducted at Maro Reef and Gardner Pinnacles through 2008 did not record any *A. globiceps* colonies, and an expert survey of both islands since listing did not record any *A. globiceps* colonies, these records groups provide inadequate evidence that either island was within the occupied area of *A. globiceps* at the time of listing in 2014 (NMFS, 2023, appendix A).

Two *S. aculeata* records groups were rated as 2 (Guam, Saipan), a species with low species identification uncertainty for trained experts. The Guam records group consists of three photo records (two from the 1970s and one from 2010), while the Saipan records group consists of an expert data record of a cluster of colonies in close proximity (*i.e.,* likely clones) from 2011. Since 2010 and 2011, hundreds of expert surveys have been conducted on Guam and Saipan within the habitat and depth range of *S. aculeata,* but no additional records have been documented. Since the most recent of these records were collected in 2010 (Guam) and 2011 (Saipan), there have been sharp declines in coral cover throughout Guam and Saipan, especially of branching corals such as *S. aculeata,* due to a multitude of disturbances. There are several reasons why these records groups provide inadequate evidence that either island was within the occupied area of *S. aculeata* at the time the species was listed in 2014. First, each records group consists of only a few records collected between the 1980s and 2010. Second, hundreds of expert surveys have been conducted on Guam and Saipan since listing in 2014 but did not record any additional *S. aculeata* colonies. Third, there have been sharp declines in the coral cover of branching corals such as *S. aculeata* on Guam and Saipan that started at least several years before listing in 2014 (NMFS, 2023, appendix A).

One *A. retusa* records group was rated as 3 (Jarvis), a species with high species identification uncertainty even for trained experts. This records group consists of a single photo taken in 2018 although the photo does not clearly show branch and colony morphology. Like the other *A. retusa* photo records from PRIA, the colony could only be identified as possible *A. retusa* colonies because of a combination of species identification uncertainty and taxonomic ambiguity. Because *A. retusa* has high species identification uncertainty especially in PRIA, the records group consists of only one poor quality and ambiguous photo record, and post-listing standardized monitoring surveys in 2015 and 2018 at Jarvis did not detect any *A. retusa* colonies, this records group does not provide adequate evidence that Jarvis was within the occupied area of *A. retusa* at the time of listing in 2014 (NMFS, 2023, appendix A).

We considered record groups with ratings of 4–10 to provide adequate evidence that the island was within the occupied area for the listed species at the time of listing. Twenty-seven of the 45 records groups were rated as 4–10 (table 1), and the rationales for why these records groups provide adequate evidence for the species being within the occupied area at the time of listing are summarized below from the Records Document (NMFS, 2023, appendix A).

Two *A. globiceps* records groups were rated as 4 (Alamagan, Uracas), a species with low species identification uncertainty for trained experts. These records groups consist of one (Alamagan) and two (Uracas) photo records, all taken in 2017. No expert surveys have been conducted on either island since then, except PIFSC's standardized monitoring survey in 2022, details for which are not yet available. Because *A. globiceps* has low species identification uncertainty, and these records consist of photo records taken in 2017, these records groups provide adequate evidence that the two islands were within the occupied area of *A. globiceps* at the time of listing in 2014 (NMFS, 2023, appendix A).

Two records groups were rated as 5, *A. retusa* from Wake Atoll, and *A. speciosa* from Tutuila. Both species have high species identification uncertainty even for trained experts. The *A. retusa*/Wake records group consists of many photo and expert data records since listing in 2014, although standardized monitoring surveys have not detected the species on Wake. The *A. speciosa*/Tutuila records group consists of several photo and expert data records before and after listing in 2014, including two from 2016 that were confirmed with skeletal samples, and one record from a standardized monitoring survey that was not confirmed with a skeletal sample. Although both species have high species identification uncertainty even for trained experts, the *A. retusa*/Wake records group consists of many photo and expert data records since listing, and the *A. speciosa*/Tutuila records group includes multiple post-listing records that were confirmed with skeletal samples. Thus the records groups provide adequate evidence that Wake Atoll was within the occupied area of *A. retusa,* and that Tutuila was within the occupied area of *A. speciosa,* at the time of listing in 2014 (NMFS, 2023, appendix A).

Seven records groups were rated as 6, six for *A. globiceps* (Ta'u, Rose Atoll, FDM, Palmyra Atoll, Johnston Atoll, FFS), and one for *E. paradivisa* from Tutuila. Both species have low species identification uncertainty for trained experts. Each of the seven records

groups include several records collected before and after listing in 2014. Because both species have low species identification uncertainty, multiple records are available for all seven islands, and records were collected after listing, these records groups provide adequate evidence that the six islands were within the occupied area of *A. globiceps,* and that Tutuila was within the occupied area of *E. paradivisa,* at the time of listing in 2014 (NMFS, 2023, appendix A).

One *A. retusa* records group was rated as 7 (Ofu-Olosega), a species with high species identification uncertainty even for trained experts. This records group consists of several records collected before and after listing in 2014. Although *A. retusa* generally has high species identification uncertainty, colonies of the species have a typical and distinct appearance in American Samoa. Because multiple records are available, some of which were collected after listing, this records group provides adequate evidence that Ofu-Olosega was within the occupied area of *A. retusa* at the time of listing in 2014 (NMFS, 2023, appendix A).

Six records groups were rated as 8, five for *A. globiceps* (Ofu-Olosega, Aguihan, Pagan, Maug Islands, Wake Atoll), and one for *I. crateriformis* from Ta'u. Both species have low species identification uncertainty for trained experts. Each of the six records groups consist of many records collected after listing in 2014. Because both species have low species identification uncertainty, and many records are available for all six islands since listing, these records groups provide adequate evidence that the five islands were within the occupied area of *A. globiceps,* and that Ta'u was within the occupied area of *I. crateriformis,* at the time of listing in 2014 (NMFS, 2023., appendix A).

Two *A. retusa* records groups were rated as 9 (Tutuila, Rose Atoll), a species with high species identification uncertainty even for trained experts. These records groups each consist of dozens of records collected after listing in 2014. Although *A. retusa* generally has high species identification uncertainty, colonies of the species have a typical and distinct appearance in American Samoa. Because dozens of records are available from after listing for both islands, these records groups provide adequate evidence that Tutuila and Rose Atoll were within the occupied area of *A. retusa* at the time of listing in 2014 (NMFS, 2023, appendix A).

Seven records groups were rated as 10, five for *A. globiceps* (Tutuila, Guam, Rota, Tinian, Saipan), and two for *I. crateriformis* (Tutuila, Ofu-Olosega). Both species have low species identification uncertainty for trained experts. Each of the seven records groups consist of dozens to hundreds of records collected after listing in 2014. Because both species have low species identification uncertainty, and many records are available for all seven islands since listing, these records groups provide adequate evidence that the five islands were within the occupied area of *A. globiceps,* and that Tutuila and Ofu-Olosega were within the occupied area of *I. crateriformis,* at the time of listing in 2014 (NMFS, 2023, appendix A).

Summary of Results for Occupied Areas and Depth Ranges

In summary, and based on the new methodology for identifying occupied areas and depth ranges as described above and in the Records Document (NMFS, 2023, appendix A), 18 records groups each provide inadequate evidence that the island where the records were collected was within the occupied area of the listed species at the time of listing, while 27 records groups each provide adequate evidence that the island was within the occupied area of the listed species at the time of listing. These 27 records groups were from 18 islands for *A. globiceps,* 4 islands for *A. retusa,* 1 island each for *A. speciosa* and *E. paradivisa,* and 3 islands for *I. crateriformis* (table 2).

In addition, the 27 records groups were used to determine the depth ranges of each listed species around each island. For *A. globiceps,* the depth ranges are 0–20 m (3 islands), 0–12 m (10 islands), and 0–10 m (5 islands). For the other 4 species, the depth ranges are 0–20 m for *A. retusa* (4 islands) and *I. crateriformis* (3 islands), and 20–50 m for *A. speciosa* and *E. paradivisa* (table 2).

TABLE 2—DEPTH RANGES (IN METERS) OF THE LISTED SPECIES AROUND EACH OF THE ISLANDS CONSIDERED TO BE OCCUPIED AT THE TIME OF LISTING BASED ON APPLICATION OF THE RECORDS ASSESSMENT METHODOLOGY

[NMFS, 2023, appendix A]

Island	*A. globiceps*	*A. retusa*	*A. speciosa*	*E. paradivisa*	*I. crateriformis*
Tutuila and Offshore Banks	0–20	0–20	20–50	20–50	0–20
Ofu-Olosega	0–20	0–20	.....	.....	0–20
Ta'u	0–20	.....	.....	.....	0–20
Rose Atoll	0–10	0–20	.....	.....	.....
Guam	0–12	.....	.....	.....	.....
Rota	0–12	.....	.....	.....	.....
Aguijan	0–12	.....	.....	.....	.....
Tinian	0–12	.....	.....	.....	.....
Saipan	0–12	.....	.....	.....	.....
Farallon de Medinilla	0–12	.....	.....	.....	.....
Alamagan	0–12	.....	.....	.....	.....
Pagan	0–12	.....	.....	.....	.....
Maug Islands	0–12	.....	.....	.....	.....
Uracas	0–12	.....	.....	.....	.....
Palmyra Atoll	0–10	.....	.....	.....	.....
Johnston Atoll	0–10	.....	.....	.....	.....
Wake Atoll	0–10	0–20	.....	.....	.....
French Frigate Shoals	0–10	.....	.....	.....	.....

Changes From the 2020 Proposed Rule

Application of the records assessment methodology described above led to substantive changes from the 2020 proposed rule: (1) a reduction in the number of listed corals whose occupied areas occurred within U.S. jurisdiction at the time of listing from seven to five species; (2) changes in the numbers of islands included within the occupied areas for most of the listed species; and (3) changes in the depth ranges for all of the listed species. These substantive changes led to other changes in this proposed rule, including refinement of critical habitat boundaries, and elimination of all proposed exclusions from critical habitat under 4(b)(2). Changes between this and the 2020 proposed rule are summarized in table 3 and described in further detail below.

TABLE 3—COMPARISON OF 2020 AND NEW PROPOSED RULES

	2020 Proposed rule	New proposed rule
Listed Coral Species With Occupied Areas*.	7 species: *A. globiceps, A. jacquelineae, A. retusa, A. speciosa, E. paradivisa, I. crateriformis, S. aculeata.*	5 species: *A. globiceps, A. retusa, A. speciosa, E. paradivisa, I. crateriformis.*
Considered for Coral Critical Habitat (*i.e.,* Islands Within Occupied Areas**).	19 island units: Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Guam, Rota, Aguijian, Tinian, Saipan, FDM, Anatahan, Pagan, Maug Islands, Howland, Palmyra Atoll, Kingman Reef, Johnston Atoll, Wake Atoll, Jarvis.	18 island units: Tutuila & Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, Guam, Rota, Aguijan, Tinian, Saipan, FDM, Alamagan, Pagan, Maug Islands, Uracas, Palmyra Atoll, Johnston Atoll, Wake Atoll, FFS.
Jurisdictions With Occupied Areas.	4 jurisdictions: American Samoa, Guam, CNMI, PRIA	5 jurisdictions: American Samoa, Guam, CNMI, PRIA, Hawaii.
Combined Depth Ranges***	0–10 m (3 units), 0–20 m (12 units), 0–40 m (4 units)	0–10 m (3 units), 0–12 m (10 units), 0–20 m (4 units), 0–50 m (1 unit).
Mapping of Specific Areas	All areas within depth ranges around all islands included	Only suitable substrates within depth ranges included.
4(a)(3) Ineligible Areas	All of FDM and Wake, most of Tinian, part of Guam	No changes.
4(b)(2) National Security Exclusions.	7 areas excluded: 6 Navy anchorages off of Saipan, 1 Navy area off of Ritidian Point on Guam.	No areas excluded.
Proposed for Coral Critical Habitat.	17 island units: The 19 island units within the occupied areas of the listed species, except FDM and Wake Atoll, which are ineligible because of 4(a)(3) INRMPs.	16 island units: The 18 island units within the occupied areas of the listed species, except FDM and Wake Atoll, which are ineligible because of 4(a)(3) INRMPs.

*These are the listed Indo-Pacific coral species whose occupied areas include islands within U.S. jurisdiction. The islands within the occupied area for each listed coral species are shown in table 2.

**These are the areas for which coral critical habitat was considered, most of which is proposed, for all of the listed coral species combined.

***These are the depth ranges around a given island for all of the listed species found on that island. The depth ranges of each listed species on each island are shown in table 2.

Changes to the Occupied Areas

Application of the new methodology for determining the occupied area for each listed species (NMFS, 2023, appendix A) resulted in changes to the numbers of islands included within the occupied areas at the time of listing (2014) for five of the seven listed species in the 2020 proposed rule. For *A. globiceps,* some new islands were added while some islands that were included in the 2020 proposed rule were removed. For *A. jacquelineae, A. retusa, A. speciosa,* and *S. aculeata,* some islands that were included in the 2020 proposed rule were removed. No changes to the islands included within the occupied areas were made for *E. paradivisa* or *I. crateriformis.*

For *A. globiceps,* four islands were added to the occupied area that were not in the 2020 proposed rule: Alamagan and Uracas in CNMI, Johnston Atoll in PRIA, and French Frigate Shoals in Hawaii. Also, two islands from the 2020 proposed rule were removed, Anatahan in CNMI and Kingman Reef in PRIA. Since 16 islands were within the occupied area for *A. globiceps* in the 2020 proposed rule, and 4 new islands have been added while 2 have been removed, this proposed rule includes 18 islands within the occupied area for *A. globiceps.* These 18 islands are in 5 jurisdictions, including 4 in American Samoa, 1 in Guam, 9 in CNMI, 3 in PRIA, and 1 in Hawaii (table 2).

For *A. jacquelineae,* one island from the 2020 proposed rule was removed, Tutuila and Offshore Banks in American Samoa. Since that was the only island within the occupied area for this species, the range of *A. jacquelineae* is considered to be entirely outside of U.S. waters.

For *A. retusa,* eight islands from the 2020 proposed rule were removed: Ta'u in American Samoa, Guam, Tinian in CNMI, and Howland, Kingman Reef, Johnston Atoll, Wake Atoll, and Jarvis in PRIA. Since 11 islands were within the occupied area for *A. retusa* in the 2020 proposed rule, and 8 have been removed, this proposed rule includes 3 islands within the occupied area for *A. retusa,* all of which are in American Samoa (table 2).

For *A. speciosa,* one island from the 2020 proposed rule was removed, Kingman Reef in PRIA. Since two islands were within the occupied area for *A. speciosa* in the 2020 proposed rule, and one has been removed, this proposed rule includes one island within the occupied area for *A. speciosa,* Tutuila and Offshore Banks in American Samoa (table 2).

For *S. aculeata,* two islands from the 2020 proposed rule were removed: Guam and Saipan in CNMI. Since these were the only islands within the occupied area for this species, the range of *S. aculeata* is considered to be entirely outside of U.S. waters.

In conclusion, based on the results of the new methodology, the islands within the occupied areas changed, and therefore the geographical areas occupied by five of the seven listed species have been revised accordingly from the 2020 proposed rule, including: *A. jacquelineae, A. globiceps, A. retusa, A. speciosa,* and *S. aculeata.* Since the occupied areas for two of the listed species, *A. jacquelineae* and *S. aculeata,* do not include any areas within U.S. jurisdiction, those two species have been removed from this proposed rule. A total of 18 islands are within the occupied area for at least one listed species, including 5 islands with multiple listed species, Tutuila and Offshore Banks (5 species), Ofu-Olosega (3 species), and Ta'u, Rose Atoll, and Wake Atoll (2 species each). The other 13 islands are within the occupied area for *A. globiceps* only (table 2).

Changes to the Depth Ranges

The records compiled via the new methodology for determining the occupied area for each listed species (NMFS, 2023, appendix A) also provided new depth range information for all five listed species in this proposed rule. Depth ranges were determined for each listed species around each island within its occupied area.

For *A. globiceps,* depth ranges were 0–20 m around all 16 islands considered for this species in the 2020 proposed rule. Based on the updated records, the depth ranges of *A. globiceps* around the 18 islands within its occupied area are now 0–20 m (3 islands), 0–12 m (10 islands), and 0–10 m (5 islands) (table 2).

For *A. retusa,* depth ranges were 0–10 m around all 11 islands considered for this species in the 2020 proposed rule. Based on the updated records, the depth ranges of *A. retusa* around the four islands within its occupied area are now 0–20 m (table 2).

For *A. speciosa,* depth ranges were 12–40 m around the two islands considered for this species in the 2020 proposed rule. Based on the updated records, the depth range of *A. speciosa* around the one island within its occupied area is now 20–50 m (table 2).

For *E. paradivisa,* depth range was 2–40 m around the one island considered for this species in the 2020 proposed rule. Based on the updated records, the depth range of *E. paradivisa* around the one island within its occupied area is now 20–50 m (table 2).

For *I. crateriformis,* depth ranges were 0–12 m around the three islands considered for this species in the 2020 proposed rule. Based on the updated records, the depth ranges of *I. crateriformis* around the three islands within its occupied area are now 0–20 m (table 2).

Changes to the Specific Areas

In this proposed rule, we refined the boundaries of the specific areas (*i.e.,* areas containing the essential feature of critical habitat for a species) for all species and islands. As a result of additional records collected to develop the proposed critical habitat designation, we obtained new information on habitat preferences indicating that the listed coral species are found entirely or predominantly on certain types of hard substrates but not others. We used that new information along with benthic maps showing the types of hard substrates throughout the occupied areas and depth ranges to delineate the boundaries of the specific areas for each of the listed corals. That is, we used detailed island-scale benthic habitat maps illustrating the variety of hard substrates that occur within the depth ranges of the listed species, together with habitat preference information showing that the listed species occur entirely or predominantly on certain hard substrate types but not on others. Thus, the benthic substrate maps, the habitat preferences, and other site-specific sources of substrate and water quality information were used to delineate the boundaries of the specific areas around each island within the listed species' occupied areas and depth ranges, as described further in the Specific Areas section.

Changes to Areas Excluded From Designation

Section 4(b)(2) of the ESA requires that we consider the economic impact, impact on national security, and any other relevant impact, of designating any particular area as critical habitat. The 4(b)(2) analyses in this proposed rule have been updated with new information and data on national security and economic impacts. In particular, the Navy's exclusion request for six anchorage berths in the Saipan Unit, which was granted in the 2020 proposed rule, is now moot because the depth range of proposed critical habitat is 0–12 m in this unit instead of 0–40 m as in the 2020 proposed rule. That is, the deepest point of critical habitat in this proposed rule in the Saipan Unit is shallower than the shallowest point within any of these six anchorage berths. One national security exclusion request remains in this proposed rule at the Navy's Ritidian Point Surface Danger Zone Complex on Guam. A full description of the 4(b)(2) analyses is provided in the Application of ESA section 4(b)(2) section of this document.

Critical Habitat Identification and Designation

In the following sections, we describe the relevant definitions and requirements in the ESA and our implementing regulations, and the key information and criteria used to prepare this proposed critical habitat designation for the five listed corals (*A. globiceps, A. retusa, A. speciosa, E. paradivisa,* and *I. crateriformis*). In accordance with section 4(b)(2) of the ESA and our implementing regulations (50 CFR 424.12), this proposed rule is based on the best scientific information available.

Our five-step process for identifying critical habitat areas for the threatened corals was to determine the following: (1) the geographical areas occupied by the listed corals at the time of listing (*i.e.,* occupied areas, as well as depth ranges for the listed corals within the occupied areas); (2) the physical or biological features essential to the conservation of the listed corals (*i.e.,* essential feature); (3) whether the physical or biological features within these geographical areas may require special management considerations or protection; (4) the specific areas within each of the occupied areas where the essential features occur (this step consists of four sub-steps); and (5) whether any unoccupied areas are essential to the conservation of any of the corals. Our evaluation and determinations are described in detail in the Information Report (NMFS, 2023) and are summarized below.

Geographical Area Occupied by the Species (Occupied Area)

The process for determining the occupied areas for the listed corals species is described in the preceding sections. The islands within the occupied area for each of the five listed species are listed in table 2, which include marine habitat around: 18 islands for *A. globiceps,* 4 islands for *A. retusa,* 3 islands for *I. crateriformis,* and 1 island each for *A. speciosa* and *E. paradivisa.*

The occupied area for each listed species is further defined by its depth range around each island within its occupied area, also shown in table 2. For *A. globiceps,* the depth ranges are 0–20 m (3 islands), 0–12 m (10 islands), and 0–10 m (5 islands). For the other 4 species, the depth ranges are 0–20 m for *A. retusa* (4 islands) and *I. crateriformis* (3 islands), and 20–50 m for *A. speciosa* and *E. paradivisa* (1 island each).

The occupied areas for the 5 listed species include a total of 18 islands, 5 of which include overlapping occupied areas for multiple listed species (*Tutuila and Offshore Banks, Ofu-Olosega, Ta'u, Rose Atoll, and Wake Atoll*).

Physical or Biological Features Essential for Conservation

Within the occupied areas, critical habitat consists of specific areas in which are found those physical and biological features (PBFs) essential to the conservation of the species and that may require special management considerations or protection. PBFs essential to the conservation of the species are defined as the features that occur in specific areas and that are essential to support the life-history needs of the species, including water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity (50 CFR 424.02).

Based on the best scientific information available, we identify the following physical feature essential to the conservation of the five corals.

Reproductive, recruitment, growth, and maturation habitat. Sites that support the normal function of all life stages of the corals, including reproduction, recruitment, and maturation. These sites are natural, consolidated hard substrate or dead coral skeleton, which is free of algae and sediment at the appropriate scale at the point of larval settlement or fragment reattachment, and the associated water column. Several attributes of these sites determine the quality of the area and influence the value of the associated feature to the conservation of the species:

(1) Substrate with presence of crevices and holes that provide cryptic habitat, the presence of microbial biofilms, or presence of crustose coralline algae;

(2) Reefscape (all the visible features of an area of reef) with no more than a thin veneer of sediment and low occupancy by fleshy and turf macroalgae;

(3) Marine water with levels of temperature, aragonite saturation, nutrients, and water clarity that have been observed to support any demographic function; and

(4) Marine water with levels of anthropogenically-introduced (from humans) chemical contaminants that do not preclude or inhibit any demographic function.

With regard to the first and second attributes, reef-building corals, including the listed species, require exposed natural consolidated hard substrate for the settlement and recruitment of larvae or asexual fragments. Substrate provides the physical surface and space necessary for settlement of coral larvae, a stable environment for metamorphosis of the larvae into the primary polyp, growth of juvenile and adult colonies, and re-attachment of fragments. A number of attributes have been shown to influence coral larval settlement. Positive cues include the presence of crustose coralline algae, biofilms, and cryptic habitat such as crevices and holes. Attributes that negatively affect settlement include presence of sediment and algae (NMFS, 2023).

With regard to the third and fourth attributes, reef-building corals, including the listed species, require seawater temperature, aragonite saturation, nutrients, and water clarity conditions within suitable ranges to enable coral growth, reproduction, and recruitment. Corals may tolerate and survive in conditions outside these suitable ranges, depending on the local conditions to which they have acclimatized and the intensity and duration of deviations outside the suitable ranges. Extended deviations from suitable ranges result in direct negative effects on all life stages. The listed corals thrive in warm, clear, nutrient-poor marine waters with calcium carbonate concentrations that allow for symbiont photosynthesis, coral physiological processes and skeleton formation. This water must also have low to no levels of contaminants that would interfere with normal functions of all life stages (NMFS, 2023).

Some new information relevant to the essential feature was provided during the public comment period for the 2020 proposed rule or has become available since then, and has been added to the description of the essential feature in the Information Report (NMFS, 2023). The new information did not, however, result in any changes to the definition of the essential feature from the 2020 proposed rule.

Need for Special Management Considerations or Protection

As described in the Information Report (NMFS, 2023), we determined that the essential feature may require special management considerations or protection throughout the species' ranges because threats to this feature exist within these areas. Such threats include global and local threats, especially ocean warming, ocean acidification, coral disease, land-based sources of pollution, and fishing. There were no public comments on this section of the Draft Information Report or 2020 proposed rule, nor has any relevant new information become available that would alter our conclusion regarding the potential need for special management considerations or protection.

Specific Areas Containing the Essential Feature Within the Geographical Areas Occupied by the Species

As described under *Geographical Area Occupied by the Species (Occupied Area)* and shown in table 2, we identified 18 island units that we considered for proposed coral critical habitat. Each island unit includes occupied habitat for at least one listed coral species. Within each occupied area in each island unit, we delineated more specific areas that contain the essential feature using a 4-step process: (1) general information was used to delineate soft vs. hard substrates; (2) for the hard substrate areas identified in Step 1, specific substrate information was used to delineate unsuitable vs. suitable hard substrates; (3) for the suitable hard substrate areas identified in Step 2, we used water quality information to further delineate suitable vs. unsuitable areas; and (4) from the suitable areas identified in Steps 1–3, we removed any overlapping artificial substrates and managed areas. The 4 steps were implemented for each of the 18 units as follows:

(1) For Step 1, we used comprehensive substrate maps developed by PIFSC (PIFSC, 2021) to delineate soft vs. hard substrates, leaving only hard substrate areas within the combined depth ranges of all listed species in each unit, except for Wake Atoll and FFS, for which PIFSC (2021) did not produce maps. For Wake Atoll, we used the substrate map from the Pacific Islands Benthic Habitat Mapping Center (PIBHMC) (PIBHMC 2021). For French Frigate Shoals, we used the geomorphological structure component of the maps developed by National Centers for Coastal and Ocean Sciences (NCCOS) (NCCOS, 2003).

(2) For Step 2, we started with the hard substrate areas identified in Step 1, then distinguished unsuitable vs. suitable hard substrates. Many hard substrates are unsuitable because: (1) highly-fluctuating physical conditions cause frequent and extreme environmental changes (*e.g.,* high tide surge vs. low tide sun exposure on many reef flat substrates); (2) water motion continuously mobilizes sediment (*e.g.,* pavement with sand channels) or unstable substrate (*e.g.,* rubble); or (3) flat, low-relief areas provide poor settlement and growth habitat (*e.g.,* pavement). Removal of these areas left suitable hard substrates, including spur-and-groove, individual patch reef, aggregate reef, aggregated patch reef, scattered coral/rock, and rock/boulder. For this step, primary information sources were Brainard *et al.* (2008, 2012, 2019), NCCOS (2003, 2005, 2010), PIBHMC (2021), PIFSC (2021), the detailed public comment letters from the Territories (AS DMWR 2021, Guam DOAG 2021, CNMI DLNR 2021), and the American Samoa, Guam, CNMI, PRIA, and Northwestern Hawaiian Islands (NWHI) chapters in Waddell and Clarke (2008). Additional sources for individual units are cited in the unit sections in the Information Report (NMFS, 2023).

(3) For Step 3, starting with the suitable hard substrate areas identified in Step 2, we used water quality information to further delineate suitable vs. unsuitable areas. Unsuitable areas are those with water quality conditions that chronically fall outside of suitable

ranges. For example, some of the areas identified in Step 2 are nearly constantly exposed to pollution such as excessive nutrients, excessive sediment (*i.e.,* more than a thin veneer), or contaminants, making them unsuitable. Generally, such areas occur in enclosed lagoons and inner harbors where there is high runoff and limited water circulation. Outside of such areas, point and non-point sources of pollution generally do not overlap with suitable hard substrates because wastewater outfalls are located on soft substrates beyond the reef slopes, and stormwater and freshwater discharges occur primarily on soft substrates (sand or mud) or unsuitable hard substrates (pavement or rubble) along or near shorelines. For this step, primary information sources were Brainard *et al.* (2008, 2012, 2019), EPA (2021a–f), the detailed public comment letters from the Territories (AS DMWR, 2021, Guam DOAG, 2021, CNMI DLNR, 2021), Territory water quality assessments (AS EPA, 2020, CNMI BECQ, 2018), and sources for individual units cited in the Information Report (NMFS, 2023).

(4) For Step 4, from the suitable areas identified via the above three steps, we removed any artificial substrates and managed areas, because they do not provide the essential feature. ''Managed areas,'' for the purposes of this proposed rule, are specific areas where the substrate has been persistently disturbed by planned management authorized by local, state, or Federal governmental entities at the time of critical habitat designation, and expectations are that the areas will continue to be periodically disturbed by such management. Examples include, but are not necessarily limited to, all harbors and their entrance channels, navigation channels, turning basins, and berthing areas that are periodically dredged or maintained. This only applies to existing artificial substrates and managed areas, not proposed or planned artificial substrates and managed areas.

The resulting specific areas are where we consider the essential feature to be distributed currently within each island unit and depth range, based on the best available information. However, on smaller spatial scales, there are likely locations within the specific areas that lack the essential feature, and the exact locations with and without the essential feature are likely to change somewhat over time in response to changing conditions. Thus, the specific areas described below are intended to delineate areas containing the essential feature, rather than areas made up completely and permanently of the essential feature. As described in detail in the Information Report (NMFS, 2023), these 4 steps were applied to each of the 18 units to delineate the specific areas of proposed coral critical habitat in more detail than in the 2020 proposed rule.

Unoccupied Critical Habitat Areas

Section 3(5)(A)(ii) of the ESA authorizes the designation of specific areas outside the geographical area occupied by the species (referred to here as ''unoccupied areas''), if those areas are determined to be essential for the conservation of the species. Our regulations at 50 CFR 424.12(b)(2) require that we first evaluate areas occupied by the species, and only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied would be inadequate to ensure the conservation of the species.

To evaluate unoccupied areas that may qualify as critical habitat, we first considered the ranges at the time of listing of the five coral species that occur in areas under U.S. jurisdiction (NMFS 2023). The best available data provides no evidence that those occupied areas have been reduced from the historical ranges for any of the five listed species. Areas within U.S. jurisdiction that are outside the occupied ranges and that could serve as habitat for these species represent <1% of the area of each of their current ranges. Because these species still occupy their historical ranges, the feature essential to their conservation is present in these areas, and the unoccupied areas represent a very small amount of potential habitat, we find the occupied areas adequate to ensure the conservation of the species (NMFS, 2023). Thus, we are not proposing to designate any unoccupied areas within U.S. jurisdiction as critical habitat. The impacts of global climate change-related threats (especially ocean warming and ocean acidification) to the listed corals and their habitats are projected to substantially worsen in the foreseeable future, which may result in range shifts for some or all of the 5 listed coral species, as well as the other 10 species of corals that occur outside U.S. jurisdiction. For the five species occurring within U.S. waters, the areas outside their occupied ranges mostly occur along the northern edges of their ranges, thus ocean warming could make the ocean temperatures of these areas more suitable for the listed species in the foreseeable future. In contrast, ocean acidification is likely to have the opposite effect, causing ocean pH levels along the northern fringes of the species' ranges to become less suitable (Brainard et al. 2011, NMFS 2014). However, it is not possible to determine where such changes are likely to happen, and how they would affect any of the listed species' habitat.

We also considered whether these conclusions would differ under the regulations that were in effect prior to the revisions to the regulations in 50 CFR 424.12(b)(2) in 2019 (see 84 FR 45020, August 27, 2019). We conclude that while our analysis would necessarily differ, the decision not to propose designating any unoccupied areas would not be any different. Because the five coral species each still occupy their historical ranges, the feature essential to their conservation is present in these areas, and unoccupied areas represent a very small amount of potential habitat, we cannot conclude that any unoccupied areas are essential to their conservation.

Application of ESA Section 4(a)(3)(B)(i) (INRMPs)

Section 4(a)(3)(B)(i) of the ESA prohibits designating as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense (DOD), or designated for its use, that are subject to an Integrated Natural Resources Management Plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of Commerce determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Two INRMPs are applicable to the proposed coral critical habitat: (1) The Navy's Joint Region Marianas INRMP (JRM INRMP), finalized and signed in 2019 (DON, 2019a); and (2) the Air Force's INRMP for Wake Island Air Field, Wake Atoll, Kokee Air Force Station, Kauai, Hawaii, and Mt. Kaala Air Force Station, Oahu, Hawaii (Wake INRMP), finalized and signed in 2023 (USAF, 2023a). The JRM INRMP is a composite of management plans for many distinct DOD-controlled areas in the Mariana Islands, including areas in Guam, Tinian, and FDM (DON, 2019a).

Summaries of the analyses in the Information Report (NMFS, 2023) of whether these two INRMPs are likely to benefit the ESA-listed corals or their habitat in Guam and CNMI (JRM INRMP) and Wake (Wake INRMP) are provided below. The analyses address the four considerations outlined in our implementing regulations at 50 CFR 424.12(h). These four considerations are: (1) the extent of the area and essential feature present in the area; (2) The type and frequency of use of the area by the listed species; (3) The

relevant elements of the INRMP in terms of management objectives, activities covered, and best management practices, and the certainty that the relevant elements will be implemented; and (4) The degree to which the relevant elements of the INRMP will protect the habitat (essential feature) from the types of effects that would be addressed through a destruction-or-adverse-modification analysis under section 7 of the ESA.

JRM INRMP—Guam

In Guam, the JRM INRMP encompasses three marine areas (hereafter ''INRMP marine areas'') that include potential proposed coral critical habitat for the one listed coral that occurs in the Mariana Islands, *A. globiceps:* (1) Naval Base Guam—Main Base (NBG Main Base) Submerged Lands; (2) Naval Base Guam—Telecommunications Site (NBG TS) Submerged Lands; and (3) Andersen Air Force Base (AAFB) Submerged Lands. A summary of the analyses of whether the INRMP is likely to benefit the habitat of *A. globiceps* in each of these three INRMP marine areas is provided below, from the full analyses in the Information Report (NMFS, 2023).

With regard to the extent of the area and essential feature present: (1) the NBG Main Base Submerged Lands cover approximately 30,000 acres (12,100 hectares) along the coastline from Orote Peninsula to Asan (described in the JRM INRMP, section 5.3, DON, 2019a); (2) the NBG TS Submerged Lands cover approximately 19,500 acres on the northwestern side of Guam (described in the JRM INRMP, section 8.3, DON, 2019a); and (3) AAFB Submerged Lands cover approximately 26,500 acres (10,700 hectares) of Submerged Lands on the northern side of Guam (described in the JRM INRMP, section 9.3, DON, 2019a). Each of the three INRMP marine areas include extensive habitat for *A. globiceps* (NMFS, 2023). The potential critical habitat within the three INRMP marine areas includes both the substrate and water quality components of the essential feature of coral critical habitat (*i.e.,* characteristics of substrate and water quality to support coral life history, including reproduction, recruitment, growth, and maturation), based on information provided in the Guam section of the Information Report (NMFS, 2023) and the INRMP (DON, 2019a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant elements of the JRM INRMP for each INRMP marine area include: (1) for the NBG Main Base Submerged Lands, the INRMP includes a Coral Habitat Enhancement Plan (section 5.4.2.1), consisting of eight specific actions in three categories (three monitoring and adaptive management actions, three collaboration with local partners actions, and two reduction of vessel impacts actions); (2) for NBG TS Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan (section 8.4.2.1), consisting of a similar set of eight specific actions as for NBG Main Base; and (3) for AAFB Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan (section 9.4.2.1), consisting of a similar set of seven specific actions as for NBG Main Base, except that there is less focus on reduction in vessel impacts because of the much lower vessel traffic there. The actions, projects, and updates through the end of 2023 are described in detail in the Information Report (NMFS, 2023).

NMFS concludes that the Navy will implement the relevant elements of the JRM INRMP for the previously described three INRMP marine areas for three reasons:

(1) Clear and Recent Documentation—the 2019 JRM INRMP includes Coral Habitat Enhancement plans for INRMP marine areas in Guam, with clear strategies and actions that address the habitat conservation needs of ESA-listed corals within these areas. The JRM INRMP's appendix D also includes annual reports describing how coral conservation efforts had been implemented in the years leading up to the 2019 final INRMP. These coral habitat conservation plans, as well as progress reports from the most recent years (DON, 2019b, 2020, 2021a,b,c,d, 2023), clearly articulate how the Navy is conserving coral habitat within the INRMP marine areas in Guam, and how it is planning to do so in the future.

(2) Demonstration of Good Faith Efforts for Listed Corals—the Navy has already implemented coral habitat conservation projects that are beneficial to ESA-listed corals within some INRMP marine areas in Guam, as described in the INRMP itself and its appendix D (DON, 2019b), as well as progress reports (DON, 2019b, 2020, 2021a,b,c,d, 2023). Many of these projects have been ongoing for several years and are proactive, in that they were not required of the Navy by the ESA.

(3) History of Strong Conservation Work—in our experience working with the Navy on the development of the marine resource components of its 2013 and 2019 final INRMPs (DON, 2013, 2019a), we have found the Navy to be successful at carrying out marine habitat conservation work on Guam, and that it often takes the initiative on conservation efforts whether requested by NMFS or not. For example, many of the coral habitat conservation projects in the 2019 JRM INRMP (DON, 2019a) and progress reports (DON, 2019b, 2020, 2021a,b,c,d, 2023) had already been started by the Navy before corals were listed in 2014, and were being done to improve conservation of marine resources on the island, regardless of whether they were required by Federal statute or not.

The coral habitat enhancement elements of the JRM INRMP described previously are expected to substantially reduce the types of effects within the three INRMP marine areas in Guam that would be addressed through the destruction-or-adverse-modification analysis. The Navy would accomplish this primarily by using the results of its own monitoring program to develop and implement management measures to minimize the impacts of the Navy's actions in Guam on coral habitat within the INRMP marine areas. Thus, implementation of the JRM INRMP is likely to provide substantial protection to the essential feature of coral critical habitat (reproductive, recruitment, growth, and maturation habitat) within the Guam INRMP marine areas from the types of effects that would be addressed through critical habitat consultation (DON, 2021a,b,d, 2023).

JRM INRMP—CNMI

In CNMI, the JRM INRMP encompasses two marine areas that include potential proposed coral critical habitat for the one listed coral that occurs in the Mariana Islands, *A. globiceps:* (1) the Tinian Marine Lease Area (Tinian MLA) Submerged Lands; and (2) the Farallon de Medinilla (FDM) Submerged Lands (DON, 2019a). A summary of the analyses of whether the INRMP is likely to benefit the habitat of *A. globiceps* in each of these two INRMP marine areas is provided below, from the full analyses in the Information Report (NMFS, 2023).

With regard to the extent of the area and essential feature present: (1) the Tinian MLA Submerged Lands cover approximately 47,500 acres (19,200 hectares) surrounding the northern portion of Tinian (described in the JRM INRMP, section 11.3, DON, 2019a); (2) the FDM Submerged Lands consists of approximately 25,000 acres (10,100 hectares) surrounding FDM (described in the JRM INRMP, section 12.3, DON, 2019a). Most or all of the potential critical habitat within the two INRMP marine areas includes both the substrate and water quality components of the

essential feature of coral critical habitat (*i.e.,* characteristics of substrate and water quality to support coral life history, including reproduction, recruitment, growth, and maturation), based on information provided in the Tinian and FDM sections of the Information Report (NMFS, 2023) and the INRMP (DON, 2019a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant elements of the JRM INRMP for each INRMP marine area include: (1) for the Tinian MLA Submerged Lands, the INRMP includes a Coral Habitat Enhancement plan, consisting of three specific actions to enhance coral habitat by monitoring health and acute impacts (section 11.4.2.1; DON, 2019a); and (2) for the FDM Submerged Lands, the INRMP includes marine habitat management actions, consisting of surveys and mapping of ESA-listed corals, coral reef, and other marine habitats within the area (section 12.4.2; DON, 2019a). The INRMP also includes an assessment of ESA-listed corals, as required by the 2015 biological opinion on the Navy's Mariana Islands Testing and Training program (section 12.4.2.2; DON, 2019a). The actions, projects, and updates through the end of 2021, are described in detail in the Information Report (NMFS, 2023).

NMFS concludes that the Navy will implement these relevant elements of the JRM INRMP for three reasons:

(1) Clear and Recent Documentation—the 2019 JRM INRMP includes Coral Habitat Enhancement plans for INRMP marine areas in CNMI (Tinian MLA, FDM Submerged Lands), with clear strategies and actions that address the habitat conservation needs of ESA-listed corals within these areas. The JRM INRMP's appendix D also includes annual reports describing how coral conservation efforts had been implemented in the years leading up to the 2019 final INRMP. These coral habitat conservation plans, as well as progress reports from the most recent years (DON, 2019b, 2020, 2021a,b,c,d, 2023), clearly articulate how the Navy is conserving coral habitat within the INRMP marine areas in CNMI, and how it will do so in the future.

(2) Demonstration of Good Faith Efforts for Listed Corals—the Navy has already implemented coral projects that have the potential to benefit the habitat of ESA-listed corals within INRMP marine areas in CNMI (Tinian MLA, FDM Submerged Lands). For example, coral species presence and abundance surveys were conducted within the Tinian MLA in 2013 (Tetra Tech, 2014) and 2017 (DON, 2017), and around FDM in 2012 (Smith and Marx, 2016), 2017 (Carilli *et al.,* 2018), and 2022 (DON 2023). These surveys have the potential to benefit the habitat of ESA-listed corals by providing the information needed to better protect these areas in the future.

(3) History of Strong Conservation Work—the Navy has a long history of carrying out successful marine habitat conservation work in the Mariana Islands and often takes the initiative on conservation efforts whether requested by NMFS or not. For example, many of the coral habitat conservation projects in the 2019 JRM INRMP (DON 2019a) and progress reports (DON, 2019b, 2020, 2021a,b,c,d, 2023) had already been started by the Navy before corals were listed in 2014. These projects were conducted to improve the conservation of marine resources on the island, regardless of whether they were required by Federal statute or not. While the majority of these projects have been implemented in Guam rather than CNMI, the JRM INRMP includes many plans for CNMI (as noted above), and the same Navy command (Joint Region Marianas) is responsible for carrying out such work in both Guam and CNMI.

The coral habitat enhancement elements of the JRM INRMP described above will substantially reduce the types of effects within the INRMP marine areas in CNMI that would be addressed through the destruction-or-adverse-modification analysis. The Navy would accomplish this primarily by using the results of its own monitoring program to develop and implement management measures to minimize the impacts of the Navy's actions in CNMI on coral habitat within the INRMP marine areas. Thus, implementation of the JRM INRMP is likely to provide substantial protection to the essential feature of coral critical habitat (reproductive, recruitment, growth, and maturation habitat) within the CNMI INRMP marine areas from the types of effects that would be addressed through critical habitat consultation (DON 2021a,c,d, 2023).

Wake INRMP

On Wake Atoll, the Wake INRMP (USAF, 2023a) encompasses the entire area considered for coral critical habitat for the two listed corals on the atoll, *A. globiceps* and *A. retusa,* as described in the Information Report (NMFS, 2023). A summary of the analyses of whether the INRMP is likely to benefit the habitat of ESA-listed corals in this INRMP marine area is provided below, from the full analyses in the Information Report (NMFS, 2023).

With regard to the extent of the area and essential feature present, the Wake INRMP marine area includes nearly 500,000 acres (202,300 hectares) of Submerged Lands and waters within the lagoon and surrounding the atoll out to 12 nautical miles (22.2 km) from the mean low water line (USAF, 2023a), and thus includes all reef-building corals and coral reefs associated with the atoll. Most or all of the potential critical habitat within the INRMP marine area includes both the substrate and water quality components of the essential feature of coral critical habitat (*i.e.,* reproductive, recruitment, growth, and maturation habitat provided by suitable substrate and suitable water quality), based on information provided in the Wake section of the Information Report (NMFS, 2023) and the INRMP (USAF, 2023a).

With regard to the relevant elements of the INRMP, and the certainty that the relevant elements will be implemented, the two parts of this step are addressed separately below. The relevant element of the Wake INRMP is the coral conservation component that was added to the INMRP in 2017 (Appendix K, Coral Conservation Actions at Wake Atoll; USAF, 2023a), which is made up of four groups of actions, each of which includes multiple projects: Water quality improvements (six projects), education and outreach (two projects), fisheries management (four projects), and physical DOD presence on Wake Atoll (three projects; USAF, 2023a). The actions, projects, and updates through the end of 2021, are described in detail in the Information Report (NMFS, 2023).

NMFS concludes that the Air Force will implement these relevant elements of the Wake INRMP for three reasons:

(1) Clear and Recent Documentation—the Wake INRMP includes a coral conservation plan (USAF, 2023a) with a 4-pronged strategy (water quality improvement, outreach and education for Wake-based staff, fisheries management, and physical DOD presence on Wake Atoll, *i.e.,* restriction of access and overall natural resource management) that comprehensively addresses the conservation needs of ESA-listed corals on Wake Atoll. This coral conservation plan clearly articulates how U.S. Air Force (USAF) is conserving corals on Wake, and how it will do so in the future. The ongoing implementation of the Wake INRMP is reported via progress updates and reviews (USAF, 2018, 2019, 2021a,b, 2023b).

(2) Demonstration of Good Faith Efforts for Listed Corals—In the years

leading up to the final Wake INRMP (USAF, 2023a), USAF implemented projects on Wake related to each of its 4-pronged coral conservation strategy, as explained in appendix S of the Wake INRMP. For water quality improvement, in 2016 USAF began implementation of both the stormwater pollution prevention and invasive plant control projects. For outreach and education, in 2016 USAF revised the Wake Island Dive Club Charter to further reduce the potential impacts of recreational activities on corals. For fisheries management, in 2017 USAF updated its fishing rules, which are part of the Wake Island Operating Guidance, to prohibit the use of (1) cast nets on the exterior of the atoll, (2) anchoring on coral reef habitat, and (3) and trolling over coral reef habitat. For physical DOD presence on Wake Atoll, in 2016 USAF funded and provided logistical support for a Fish and Wildlife Service (FWS) coral survey that documented two ESA-listed corals on the atoll for the first time. Since 2017, USAF has implemented projects on Wake for each of its 4-pronged coral conservation strategy, as noted above in the 2021 updates, and detailed in the progress updates and reviews (USAF, 2018, 2019, 2021a,b, 2023b).

(3) History of Strong Conservation Work—USAF has a long history of carrying out successful conservation work on Wake and often takes the initiative on conservation efforts whether requested by NMFS or not. For example, many of the projects in the INRMP's coral conservation strategy had already been started by USAF before corals were listed in 2014, and were being done to improve the conservation of marine and terrestrial resources on the atoll, regardless of whether they were required by Federal statute or not. Likewise, in 2016, USAF funded and supported the FWS coral survey of the atoll, leading to the discovery that the two ESA-listed corals occur on the atoll. In addition, USAF has historically been a strong conservation partner with NMFS, supporting a wide variety of marine and terrestrial conservation projects, and actively engaging both agencies in the INRMP planning and implementation process, as described in the progress updates and reviews (USAF, 2018, 2019, 2021a,b, 2023b).

The coral conservation component of the Wake INRMP (Appendix K, Coral Conservation Actions at Wake Atoll; USAF, 2023a) is expected to reduce both direct and indirect impacts to listed corals via minimization or avoidance of recreational impacts (fishing, diving, anchoring), and terrestrial impacts (*i.e.,* run-off from land-based activities), thereby addressing two of the primary threats to listed corals (fishing and land-based sources of pollution). That is, the coral conservation elements of the Wake Atoll INRMP described previously are expected to substantially reduce the types of effects at Wake Atoll that would be addressed through the destruction-or-adverse-modification analysis. Based on the fact that the Wake INRMP's coral conservation strategy is well-designed to reduce impacts to listed corals, and also that recent progress updates and reviews (USAF, 2018, 2019, 2021a,b, 2023b) demonstrate substantial progress with the implementation of the strategy, we determined that the Wake INRMP provides a benefit to listed corals, and their critical habitat (reproductive, recruitment, growth, and maturation habitat).

Conclusion Regarding Areas Subject to INRMPs

Based on the analyses summarized previously and provided in the Information Report (NMFS, 2023), we conclude both the JRM INRMP (DON, 2019a) and the Wake INRMP (USAF, 2023a) provide a conservation benefit to the listed corals and their habitats within all INRMP marine areas on Guam, CNMI, and Wake. Thus, the potential coral critical habitat areas within the INRMP marine areas on Guam, Tinian, FDM, and Wake are ineligible for designation as critical habitat.

Application of ESA Section 4(b)(2)

Section 4(b)(2) of the ESA requires that we consider the economic impact, impact on national security, and any other relevant impact, of designating any particular area as critical habitat. Additionally, the Secretary has the discretion to consider excluding any area from critical habitat if they determine that the benefits of exclusion (that is, avoiding some or all of the impacts that would result from designation) outweigh the benefits of designation based upon the best scientific and commercial data available. The Secretary may not exclude an area from designation if exclusion will result in the extinction of the species.

The following sub-sections summarize the economic, national security, and other relevant impacts analyses in the Information Report (NMFS, 2023) that we projected would result from proposed coral critical habitat. We considered these impacts when deciding whether to exercise our discretion to exclude particular areas from the designation. Both positive and negative impacts were identified and considered (these terms are used interchangeably with benefits and costs, respectively). Impacts were evaluated in quantitative terms where feasible, but qualitative appraisals were used where that is more appropriate.

The primary impacts of a critical habitat designation result from the ESA section 7(a)(2) requirement that Federal agencies ensure that their actions are not likely to result in the destruction or adverse modification of critical habitat and that they consult with NMFS in fulfilling this requirement. The impacts of designating coral critical habitat are only those that would be in addition to the impacts of listing (*i.e.,* incremental impacts). The distribution of listed corals within critical habitat strongly influences the extent of incremental impacts. That is, the more colonies of listed corals that are distributed throughout coral critical habitat, the lower the proportion of Federal actions that would affect critical habitat but not listed corals, and thus the lower the incremental impacts of critical habitat designation. As described in section 3.3.19 of the Information Report (NMFS, 2023), colonies of listed corals are generally distributed throughout the specific areas being considered for proposed coral critical habitat, thus the incremental impacts are expected to be quite low.

Summaries of the economic, national security, and other relevant impact analyses in the Information Report (NMFS, 2023) are provided below. The analyses follow the guidance for 4(b)(2) analyses provided in our 2016 policy (81 FR 7226, February 11, 2016) and regulations at 50 CFR 424.19.

4(b)(2) Economic Impact Analysis

The economic impacts of designating the areas identified as coral critical habitat are analyzed in the full 4(b)(2) Economic Impact Analysis document, completed in late 2021, which is appendix C of the Information Report (NMFS, 2023). Economic impacts are projected for the 10-year period 2022–2031, and uncertainty is accounted for by using low-end and high-end scenarios to estimate incremental impacts. The Economic Impact Analysis Report (NMFS, 2023, appendix C) presents economic impacts in terms of present value versus annualized costs. For example, table 17 of the report summarizes the low-end estimated cost of coral critical habitat as $373,171 in terms of the present value of the total cost over the 10-yr period of 2022–2031, with an estimated annualized cost of $53,131 over that 10-yr period. Present value over the 10-year period is not

simply 10 times the annualized cost because present value represents the sum of a series of past or future cash flows discounted at a specified discount rate (in this case, 7 percent) and expressed in constant dollars, whereas annualized cost provides a comparison of impacts across activities with varying forecast periods (NMFS, 2023, appendix C).

For the low-end scenario, total incremental costs over the 10-year period are estimated at $373,171 for all jurisdictions combined or $53,131 annualized. These are entirely administrative costs since the low-end scenario assumes that no project modifications would be required. For the high-end scenario, total incremental costs over the 10-year period are estimated at $6,815,860 for all jurisdictions combined or $970,425 annualized. Of these costs, 95 percent are derived from project modifications because, for purposes of this analysis, the high-end scenario assumes that 100 percent of section 7 consultations will be formal consultations that result in the need for project modifications to avoid destruction or adverse modification of the critical habitat. The jurisdiction with the highest economic impacts in both scenarios is Guam, due to the relatively high number of expected consultations there (NMFS, 2023).

While the low-end vs. high-end scenarios are useful for illustrating the range of potential economic impacts, the following points are relevant to interpreting the results:

(1) Both scenarios assumed that proposed coral critical habitat would be 0–50 m depth around all island units considered in proposed coral critical habitat; however, proposed coral critical habitat is 0–50 m depth on just one island (Tutuila) and 0–20 m, 0–12 m, and 0–10 m on the others.

(2) Colonies of listed corals occur within all specific areas being considered for proposed coral critical habitat (NMFS, 2023, appendix A), thus reducing incremental impacts. That is, since colonies of listed corals occur in all specific areas of proposed coral critical habitat, there would be a low proportion of future Federal actions that would affect critical habitat but not listed corals. As the proposed coral critical habitat will not include extensive areas where listed coral colonies are absent, the incremental impacts of proposed coral critical habitat are likely to be quite low, which minimizes economic impacts.

(3) A comparison of projected vs. actual consultations in 2016–2019 was included in the economic analysis done for the 2020 proposed coral critical habitat rule (NMFS 2020, appendix B), which showed that three times more formal consultations were projected in the high-end scenario than actually occurred. That is, the reality of consultations was more similar to the low-end scenario than the high-end scenario.

For these reasons, it is reasonable to conclude that the actual economic impacts are likely to be much closer to those projected in the low-end scenario than the high-end scenario. In addition, economic benefits would be relatively high in the high-end scenario (because project modifications would provide better protection of coral reef ecosystems, which produce economic benefits, as described in section 5.1.6 of the Information Report (NMFS, 2023), but lower in the low-end scenario (because there would be no project modifications, and thus no increased protection of coral reef ecosystems).

4(b)(2) National Security Impact Analysis

We received a request from the Department of the Navy (Navy) to exclude one site based on national security impacts: The portion of the Navy's Ritidian Point Surface Danger Zone (SDZ) Complex outside of DOD Submerged Lands on Guam. For this site, we weighed the national security impacts of designating the site as critical habitat against the conservation benefits to the listed corals of designating the site as critical habitat. If impacts to national security outweigh the benefits of including an area in the designation, the Secretary may exercise her discretion to exclude that particular area from critical habitat. If the benefits of including the area in the designation outweigh the impacts to national security, however, the site cannot be considered for exclusion from critical habitat (81 FR 7226, February 11, 2016).

The Ritidian Point SDZ complex overlaps with a small area of forereef identified for potential designation as coral critical habitat. The area is 0–12 m of depth and consists primarily of spur-and-groove and aggregate reef that provides high quality coral habitat. A species-level coral survey conducted in 2021 at this site indicated that *A. globiceps* was present, finding a total of four colonies along eight 50-m transects at 6 m depth within forereef habitat at the site. In contrast, a species-level coral survey conducted in 2006 at this site did not find any *A. globiceps* colonies along a different set of eight 50-m transects between 1 and 20 m within forereef and reef flat habitat (NMFS, 2023).

National security impacts depend on the additional section 7 requirements that would result from the coral critical habitat, above and beyond those already required to avoid jeopardizing the continued existence of any listed species or avoid destruction or adverse modification of other, designated critical habitats (*i.e.* incremental impacts). The Navy noted that the Ritidian Point SDZ complex supports training at the Marine Corps Live Fire Training Range Complex (LFTRC) at AAFB, and construction of new facilities (*e.g.,* range administration building, range maintenance building, and observation towers) at AAFB, to meet the individual weapons training/qualification requirements of the Marine Corps. This SDZ is expected to be operational for 32 weeks per year and extends approximately 2 miles over open water in the event stray bullets go over the berm and into the ocean. If this occurs, the bullets will settle on the seafloor (NMFS, 2023).

The Navy stated that designation of the marine component of this site as coral critical habitat would result in limitations on live fire training at LFTRC. The Navy explained that such limitations would occur because limited staff time and resources would be diverted to preparing additional documents required to implement activities in critical habitat areas from work required on other vital environmental items. In 2021 and 2022, the Navy confirmed that this information is still applicable to the site. Because many training and construction activities are planned at LFTRC adjacent to this marine area, the listed coral *A. globiceps* occurs there, and the planned activities have the potential to affect this listed species, ESA section 7 consultations would likely be necessary whether critical habitat is designated or not. That is, the additional consultation requirement above and beyond what would already be required by the fact that listed corals occur at the site is not expected to be substantial. Also, the additional consultation for critical habitat would be for activities that are planned in advance, and thus the additional section 7 consultation workload would not be unpredictable but rather could be anticipated and managed ahead of time.

The Navy noted that the individual live fire training for Marine Corps personnel at the LFTRC on Guam is a prerequisite for conducting unit level and combined level training. The Navy further explained that without the qualification of these live fire training events, individuals and small teams are not capable of conducting larger unit

collective events, and that the LFTRC provides the necessary foundation for which training progression is built upon. Plans are in place to considerably expand LFTRC in anticipation of growing Marine Corps training needs. No other facility on Guam or elsewhere in the Mariana Islands provides this type of training. In 2021 and 2022, the Navy confirmed that this information is still applicable to the site (NMFS, 2023).

In determining benefits to the conservation of ESA-listed corals we considered whether designation of critical habitat at the particular site would lead to additional conservation of the species beyond what is already provided by the species' listing. The potential for additional conservation at a given site is a function of the listed corals' use of the area, the level of protection already provided by existing management (*e.g.,* the site is entirely within Guam National Wildlife Refuge), and the likelihood of non-DOD actions that are likely to affect the area and that are subject to the consultation requirements of section 7.

As elsewhere on Guam, the coral reef habitat within the area being considered for proposed coral critical habitat is made up of forereef from 0—12 m depth, consisting primarily of spur-and-groove and aggregate reef. As noted above, *A. globiceps* occurs at this site. However, colonies of the species may die off in response to natural disturbances and not reappear for a few years, which may be why the 2021 survey found *A. globiceps* there but the 2006 survey did not despite surveying within the same habitat and depth range. Such mortality and recovery and associated disappearance and reappearance of coral populations at any given site is a normal response to natural disturbance. Critical habitat protects the essential feature whether colonies of the listed coral species occur at the site at the time of consultation or not.

The area being considered for potential designation as coral critical habitat is entirely within U.S. Fish and Wildlife Service (USFWS) Submerged Lands, which forms the marine component of the Guam National Wildlife Refuge (NWR), and is managed according to the Guam NWR Comprehensive Conservation Plan. The plan includes Strategies to Restore, Protect, and Maintain Native Marine Communities, such as marine debris removal and area closures. The site is also entirely within Essential Fish Habitat (EFH) for coral reef ecosystems, but EFH protections are not mandatory (NMFS, 2023).

It is possible that non-DOD Federal actions will be proposed within this site that could affect the essential feature (*e.g.,* actions proposed by USFWS), but that would no longer be subject to the critical habitat provision if the particular area were excluded from the designation. When the site is not closed by the SDZ, non-DOD actions could potentially occur there, for example those permitted or carried out by USFWS. Although such actions would presumably be consistent with the Guam NWR Comprehensive Conservation Plan (USFWS 2009), they may affect the essential feature (NMFS, 2023).

Based on the considerations described above, we conclude that the impacts to national security of including this area within critical habitat do not outweigh the conservation benefits to the listed corals, and thus do not propose to exclude the Ritidian Point SDZ complex from proposed coral critical habitat designation. The most important factors supporting this recommendation are: (1) the national security impacts of coral critical habitat are unlikely to be either substantial or unpredictable because listed corals are known to occur at this site at least some of the time, meaning that the Navy would already be conducting section 7 consultations on listed corals for any of their activities that may affect listed corals at this site even without critical habitat, resulting in little additional consultation work; and (2) the conservation benefits of coral critical habitat could be considerable because critical habitat would provide additional protection of the high quality essential feature that is found throughout the area from future proposed Federal actions (NMFS, 2023).

Other Relevant Impacts

Other relevant impacts include the benefits of critical habitat designation and impacts on governmental or private entities that are implementing existing management plans that provide benefits to the listed species. The three main types of benefits of critical habitat designation are increased protection of the essential feature from Federal actions, ecosystem service benefits of coral reef conservation, and education and awareness.

Critical habitat is habitat needed to support recovery of listed species. That is, the most direct benefits of the critical habitat designation stem from the increased protection of the essential feature from Federal actions. While listed corals are generally distributed throughout the specific areas, there are still many locations within the specific areas that lack colonies of listed corals at any given point in time due to natural spatial and temporal fluctuations of coral colony presence. That is, individual colonies of listed corals may decrease or disappear from particular locations in response to local disturbances, then return and increase as local conditions improve. Such dynamic spatial and temporal fluctuations in the distribution of colonies of listed corals within the specific areas is a natural process. Critical habitat thus protects the essential feature in locations and during times when specific areas lack colonies of listed corals and Federal actions are proposed at that location (NMFS, 2023).

Overall, coral reef ecosystems, including those comprising populations of the listed corals, provide important ecosystem services of value to individuals, communities, and economies. These include recreational opportunities (and associated tourism spending in the regional economy), habitat and nursery functions for recreationally and commercially valuable fish species, shoreline protection in the form of wave attenuation and reduced beach erosion, and climate stabilization via carbon sequestration. As of 2021, the total economic value of coral reefs in the three U.S. Pacific Islands jurisdictions where the great majority of critical habitat is being proposed is (1) American Samoa—$13.4 million/year, (2) Guam—$165.0 million/year, and (3) CNMI—$60.4 million/year (NMFS, 2023). Efforts to conserve the listed corals also benefit the broader reef ecosystems, thereby preserving or improving these ecosystem services and values (NOAA Coral Reef Conservation Program, 2013). While we cannot quantify the precise economic benefits of designating critical habitat, providing these values gives an indication of the value of conserving coral habitat.

There is the potential for education and awareness benefits arising from the critical habitat designation, stemming from entities that engage in section 7 consultations, and from members of the general public interested in coral conservation. Entities that engage in section 7 consultations may alter their activities to benefit the species or essential feature because they were made aware of the critical habitat designation through either the section 7 consultation process or the original listings. Members of the public may engage in similar efforts because they learned of the critical habitat designation through outreach materials (NMFS, 2023).

Impacts may also occur to governmental or private entities that are

implementing existing management plans that provide benefits to the listed species, although such potential impacts would be limited to actions that have a Federal nexus and affect critical habitat.

There are a large number of Federal marine protected areas in American Samoa, Guam, CNMI, PRIA, and NWHI where coral critical habitat is being proposed, and many of these jurisdictions have draft or proposed management plans (NMFS, 2023). Impacts of critical habitat designation on the agencies responsible for natural resource management planning of these areas (*e.g.,* the National Park Service, USFWS, and Territorial natural resources management agencies), depend on the type and number of section 7 consultations that may result from the designation in the areas covered by those plans, as well as any potential project modifications recommended by these consultations. Negative impacts to these entities could result if the critical habitat designation interferes with these agencies' ability to provide for the conservation of the species, or otherwise hampers the management of these areas.

Existing or proposed management plans in the marine protected areas and their associated regulations protect existing coral reef resources, but they may not specifically protect the substrate and water quality components of the essential feature for purposes of increasing listed coral abundance and eventual recovery. However, section 7 consultations on the implementation of these Federal marine protected area plans over the next 10 years are not expected to result in incremental project modifications, thus any section 7 impacts will likely be limited to administrative costs (NMFS, 2023, appendix C).

Conclusions for Section 4(b)(2)

We are not exercising our discretion to exclude any areas from the proposed coral critical habitat based on economic or national security impacts. As summarized in the *4(b)(2) Economic Impact Analysis* section, the economic impacts of the proposed coral critical habitat are likely to be low, even on the islands with concentrated economic activity (Tutuila, Guam, Saipan). Since these are the three units where most future proposed Federal actions that could affect critical habitat are expected (NMFS, 2023, appendix C), the conservation benefits of critical habitat are the greatest in these three units. Thus, economic impacts do not outweigh conservation benefits. Likewise, as summarized in the *4(b)(2) National Security Impact Analysis* section, the national security impacts of the proposed coral critical habitat on the one requested exclusion site, the Navy's Ritidian Point Surface Danger Zone complex in Guam, are not expected to outweigh the conservation benefits of designating critical habitat.

Proposed Critical Habitat Designations

We are proposing to designate critical habitat for 5 listed coral species around 16 islands in 5 U.S. Pacific Islands jurisdictions. For *A. globiceps,* specific areas around all 16 islands are proposed, including 4 in American Samoa, 1 in Guam, 9 in CNMI, 3 in PRIA, and 1 in Hawaii. The depth ranges of the specific areas for *A. globiceps* are 0–20 m (3 islands), 0–12 m (9 islands), and 0–10 m (4 islands). For *A. retusa,* specific areas around three islands are proposed, all of which are in American Samoa. The depth ranges of the specific areas for *A. retusa* are 0–20 m on all three islands. For *A. speciosa* and *E. paradivisa,* specific areas around Tutuila and its offshore banks in American Samoa are proposed. The depth ranges of the specific areas for *A. speciosa* and *E. paradivisa* are 20–50 m. For *I. crateriformis,* specific areas around three islands are proposed, all of which are in American Samoa. The depth ranges of the specific areas for *I. crateriformis* are 0–20 m on all three islands (table 4). The 4(a)(3)(B)(i) INRMP analyses found that the entire areas around FDM and Wake Atoll, several areas off of Guam, and most of Tinian are ineligible for proposed coral critical habitat. Maps of the proposed critical habitat for each of the listed species around each of the 16 islands are provided at the end of this rulemaking (table 4).

TABLE 4—THE 16 ISLAND UNITS THAT CONTAIN PROPOSED CRITICAL HABITAT FOR THE 5 LISTED CORAL SPECIES

[For each species, depth ranges in meters and figure numbers ("Fig.") for the maps are shown. Maps showing areas that were deemed ineligible for designation of critical habitat by the 4(a)(3)(B)(i) INRMP analyses are also noted.]

Island (unit)	*A. globiceps*		*A. retusa*		*A. speciosa*		*E. paradivisa*		*I. crateriformis*		4(a)(3)(B)(i)
	Depth	Fig.	Depth	Fig.	Depth	Fig.	Depth	Fig.	Depth	Fig.	Fig.
Tutuila and Offshore Banks	0–20	1	0–20	1	20–50	2	20–50	2	0–20	1	
Ofu-Olosega	0–20	3	0–20	3					0–20	3	
Ta'u	0–20	4							0–20	4	
Rose Atoll	0–10	5	0–20	5							
Guam	0–12	6									6
Rota	0–12	7									
Aguijan	0–12	8									
Tinian	0–12	9									9
Saipan	0–12	10									
Alamagan	0–12	11									
Pagan	0–12	12									
Maug Islands	0–12	13									
Uracas	0–12	14									
Palmyra Atoll	0–10	15									
Johnston Atoll	0–10	16									
FFS	0–10	17									

Effects of Critical Habitat Designations

Section 7(a)(2) of the ESA requires Federal agencies, including NMFS, to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of any threatened or endangered species or destroy or adversely modify designated critical habitat. When a species is listed or critical habitat is designated, Federal agencies must consult with NMFS on any agency actions to be conducted in an area where the species is present and that may affect the species or its critical habitat. During formal consultation, NMFS would evaluate the agency's action to determine whether the action may adversely affect listed species or designated critical habitat and issue its

findings in a biological opinion. If NMFS concludes in the biological opinion that the proposed agency action would likely result in the destruction or adverse modification of designated critical habitat, NMFS would identify any reasonable and prudent alternatives to the action. Reasonable and prudent alternatives are defined in 50 CFR 402.02 as alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat. If NMFS concludes in the biological opinion that the proposed agency action would not likely result in the destruction or adverse modification of designated critical habitat, NMFS may provide discretionary conservation recommendations.

Regulations at 50 CFR 402.16 require Federal agencies that have retained discretionary involvement or control over an action, or where such discretionary involvement or control is authorized by law, to reinitiate consultation on previously reviewed actions in instances in which (1) critical habitat is subsequently designated, or (2) new information or changes to the action may result in effects to critical habitat not previously considered in the biological opinion. Consequently, some Federal agencies may request reinitiation of consultation or to conference with NMFS on actions for which formal consultation has been completed, if those actions may adversely modify or destroy designated critical habitat or adversely modify or destroy proposed critical habitat, respectively.

Activities That May Be Affected

Section 4(b)(8) of the ESA requires that we describe briefly, and evaluate in any proposed or final regulation to designate critical habitat, those activities that may adversely modify such habitat or that may be affected by such designation. A wide variety of Federal activities may require ESA section 7 consultation because they may affect the essential feature of critical habitat (*i.e.,* suitable substrate and suitable water quality). Specific future activities would need to be evaluated with respect to their potential to destroy or adversely modify critical habitat, in addition to their potential to affect and jeopardize the continued existence of listed species. For example, activities may adversely modify the essential feature by removing or altering the substrate or reducing water clarity through turbidity. These activities would require ESA section 7 consultation when they are authorized, funded, or carried out by a Federal agency. Non-Federal entities may also be affected by these proposed critical habitat designations if they are undertaking a project that requires a Federal permit or receives Federal funding. Categories of activities that may be affected by the designations include in-water and coastal construction, dredging and disposal, water quality and discharges, fishery management, military activities, shipwreck and marine debris removal, scientific research and monitoring, aquaculture, protected area management, and beach nourishment/shoreline protection. Further information is provided in the Economic Impact Analysis in our Information Report (NMFS, 2023, appendix C). Questions regarding whether specific activities will constitute destruction or adverse modification of critical habitat should be directed to us (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

Public Comments Solicited

We request that interested persons submit comments, information, and suggestions concerning this proposed rule during the comment period (see **DATES**). We are soliciting comments or suggestions from the public, other concerned governments and agencies, the scientific community, industry, or any other interested party concerning this proposed rule, including any foreseeable economic, national security, or other relevant impact resulting from the proposed designations. We are seeking comments on the changes in this proposed rule from the 2020 proposed rule, including the following: (1) development of the methodology for using records of listed coral species to determine their occupied areas for critical habitat; (2) changes to the occupied areas for the listed coral species; (3) changes to the depth ranges for the listed coral species; and (4) other changes including refinement of critical habitat boundaries. These changes are summarized in the Summary of Changes From the 2020 Proposed Rule above and described in detail in the Information Report (NMFS, 2023). You may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES**). Copies of the proposed rule and supporting documentation are available at *https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-threatened-indo-pacific-corals,* or upon request (see **FOR FURTHER INFORMATION CONTACT**). We will consider all comments pertaining to this designation received during the comment period in preparing the final rule. Accordingly, the final designation may differ from this proposal.

References Cited

A complete list of all references cited in this rulemaking is available at *https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-threatened-indo-pacific-corals,* or upon request (see **FOR FURTHER INFORMATION CONTACT**). In addition, PDF copies of all cited documents are available upon request from the NMFS Pacific Islands Regional Office in Honolulu, HI (see **ADDRESSES**).

Information Quality Act and Peer Review

The data and analyses supporting this action have undergone a predissemination review and have been determined to be in compliance with applicable information quality guidelines implementing the Information Quality Act (section 515 of Pub. L. 106–554). On December 16, 2004, OMB issued its Final Information Quality Bulletin for Peer Review (Bulletin). The Bulletin was published in the **Federal Register** on January 14, 2005 (70 FR 2664), and went into effect on June 16, 2005. The primary purpose of the Bulletin is to improve the quality and credibility of scientific information disseminated by the Federal Government by requiring peer review of ''influential scientific information'' and ''highly influential scientific information'' prior to public dissemination. ''Influential scientific information'' is defined as information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. The Bulletin provides agencies broad discretion in determining the appropriate process and level of peer review. Stricter standards were established for the peer review of highly influential scientific assessments, defined as information whose dissemination could have a potential impact of more than $500 million in any one year on either the public or private sector or that the dissemination is novel, controversial, or precedent-setting, or has significant interagency interest.

The information in the Critical Habitat Information Report (NMFS, 2023) and its appendices was

considered influential scientific information and subject to peer review. To satisfy our requirements under the OMB Bulletin, we obtained independent peer review of the the Critical Habitat Information Report (NMFS, 2023) and its appendices. The resulting Peer Review Reports are available on our website *https://www.noaa.gov/information-technology/endangered-species-act-critical-habitat-designation-for-7-indo-pacific-corals-information-report.*

Classification

Takings (Executive Order 12630)

Under E.O. 12630, Federal agencies must consider the effects of their actions on constitutionally protected private property rights and avoid unnecessary takings of private property. A taking of property includes actions that result in physical invasion or occupancy of private property and regulations imposed on private property that substantially affect its value or use. In accordance with E.O. 12630, this proposed rule would not have significant takings implications, because it does not include, occupy or invade private property or otherwise affect the value or use of private property to qualify as a taking. A takings implication assessment is not required.

Regulatory Planning and Review (E.O.s 12866, 14094, 13563)

This rulemaking has been determined to be significant for purposes of E.O. 12866 as amended by Executive Order 14094. Executive Order 14094, which amends E.O. 12866 and reaffirms the principles of E.O. 12866 and E.O 13563, states that regulatory analysis should facilitate agency efforts to develop regulations that serve the public interest, advance statutory objectives, and be consistent with E.O. 12866, E.O. 13563, and the Presidential Memorandum of January 20, 2021 (Modernizing Regulatory Review). Regulatory analysis, as practicable and appropriate, shall recognize distributive impacts and equity, to the extent permitted by law. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

A draft economic impact analysis report, which has been prepared as part of the Information Report (see appendix C of NMFS, 2023), considers the economic costs and benefits of this proposed critical habitat designation and alternatives to this rulemaking as required under E.O. 12866. Based on the impact analysis report, low-end total incremental costs over the 10-year period are estimated at $373,171 for all jurisdictions combined or $53,131 annualized. These are 100 percent administrative costs since the low-end scenario assumes that no project modifications will be required. For the high-end, total incremental costs over the 10-year period are estimated at $6,815,860 for all jurisdictions combined or $970,425 annualized. Of these costs, 95 percent are derived from project modifications since the high-end scenario assumes that 100 percent of section 7 consultations will be formal. The jurisdiction with the highest economic impacts in both scenarios is Guam, due to the relatively high number of expected consultations there (NMFS, 2023, appendix C).

As explained under the *4(b)(2) Economic Impact Analysis,* we find that the actual economic impacts are likely to be much closer to the low-end scenario's projections than the high-end scenario's projections. In addition, economic benefits would be relatively high in the high-end scenario (because project modifications would provide better protection of coral reef ecosystems, which produce economic benefits), but non-existent in the low-end scenario (because there would be no project modifications, and thus no increased protection of coral reef ecosystems). We conclude that the economic impacts of the proposed coral critical habitat are likely to be much closer to those projected by the low-end scenario than the high-end scenario, and also that there would be low economic benefits. That is, we find that the economic analysis and IRFA support the conclusion that the proposed coral critical habitat would have low economic effects on small entities. A proposed Economic Impact Analysis Report (appendix C of the Information Report; NMFS, 2023) and Final ESA section 4(b)(2) Report (*i.e.,* the 4(b)(2) section of the Information Report; NMFS, 2023) have been prepared to support the exclusion process under section 4(b)(2) of the ESA and our consideration of alternatives to this rulemaking. These supporting documents are available at the link provided in **ADDRESSES**, or upon request (see **FOR FURTHER INFORMATION CONTACT**).

Federalism (E.O. 13132)

The E.O. on Federalism, Executive Order 13132, requires agencies to take into account any federalism impacts of regulations under development. It includes specific consultation directives for situations in which a regulation may preempt State law or impose substantial direct compliance costs on State and local governments (unless required by statute). Pursuant to E.O. 13132, we determined that this proposed rule does not have significant federalism effects and that a federalism assessment is not required. In keeping with Department of Commerce policies and consistent with ESA regulations at 50 CFR 424.16(c)(1)(ii), we requested information for this rulemaking from the appropriate marine resources agencies in American Samoa, Guam, CNMI, PRIA, and Hawaii. The designation may have some benefit to State and local resource agencies in that the rule more clearly defines the physical and biological feature essential to the conservation of the species and the areas in which that feature is found. While this designation would not alter where and what non-federally sponsored activities may occur, it may assist local governments in long-range planning (rather than waiting for case-by-case ESA section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests only on the Federal agency.

Energy Supply, Distribution, and Use (E.O. 13211)

Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking an action expected to lead to the promulgation of a final rule or regulation that is a significant regulatory action under E.O. 12866 and is likely to have a significant adverse effect on the supply, distribution, or use of energy. OMB Guidance on Implementing E.O. 13211 (July 13, 2001) states that significant adverse effects could include any of the following outcomes compared to a world without the regulatory action under consideration: (1) reductions in crude oil supply in excess of 10,000 barrels per day; (2) reductions in fuel production in excess of 4,000 barrels per day; (3) reductions in coal production in excess of 5 million tons (4.5 million metric tons) per year;

(4) reductions in natural gas production in excess of 25 million cubic feet (708,000 cubic meters) per year; (5) reductions in electricity production in excess of 1 billion kilowatt-hours per year or in excess of 500 megawatts of installed capacity; (6) increases in energy use required by the regulatory action that exceed any of the thresholds previously described; (7) increases in the cost of energy production in excess of 1 percent; (8) increases in the cost of energy distribution in excess of 1 percent; or (9) other similarly adverse outcomes. A regulatory action could also have significant adverse effects if it (1) adversely affects in a material way the productivity, competition, or prices in the energy sector; (2) adversely affects in a material way productivity, competition, or prices within a region; (3) creates a serious inconsistency or otherwise interferes with an action taken or planned by another agency regarding energy; or (4) raises novel legal or policy issues adversely affecting the supply, distribution or use of energy arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866 and 13211.

The economic impacts of this rulemaking are analyzed in the full 4(b)(2) Economic Impact Analysis, which is appendix C of the Information Report (NMFS, 2023). Based on the results of that analysis, the economic impacts on energy supply, distribution, and use would either be non-existent or far below the above thresholds. Thus, we have determined that this rulemaking will not have a significant adverse effect on the supply, distribution, or use of energy. Therefore, we have not prepared a Statement of Energy Effects.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

We prepared an Initial Regulatory Flexibility Analysis (IRFA) pursuant to section 603 of the Regulatory Flexibility Act (RFA). The IRFA analyzes the impacts to small entities that may be affected by the proposed designation and is included as appendix D of the Information Report (NMFS, 2023), which is available at the link provided in **ADDRESSES**, or upon request (see **FOR FURTHER INFORMATION CONTACT)**. We welcome public comment on the IRFA, which is summarized below, as required by section 603 of the RFA.

The IRFA uses the best available information to identify the potential impacts of designating critical habitat on small entities. However, uncertainty regarding the extent to which impacts of the proposed designation would be allocated between large and small entities complicates quantification of impacts specifically borne by small entities. Absent specific knowledge regarding which small entities may be involved in consultations with NMFS over the next ten years, this analysis relies on industry- and location-specific information on small businesses with North American Classification System (NAICS) codes that were identified as relevant to the major activity categories considered in the economic analysis and which operate within counties or territories that share a coastline with the proposed critical habitat. Activities considered in the draft economic report and the IRFA include in-water and coastal construction, dredging and disposal, water quality and discharges, fishery management, military activities, shipwreck and marine debris removal, scientific research and monitoring, aquaculture, protected area management, and beach nourishment/shoreline protection.

Information presented in section 4.0 of the Economic Impact Analysis Report demonstrates the lack of third-party involvement in consultations on the effects of Federal fishery management, protected area management, shipwreck removal, scientific research and monitoring, and military activities on ESA-listed marine species within the island units considered for proposed coral critical habitat in the five jurisdictions. Unlike consultations on in-water and coastal construction and dredging projects, these consultations are conducted directly between NMFS and the Federal action agency with no third-party involvement. Each of these five categories of consultation is represented in the consultations completed in 2005–2020 that were reviewed for the economic impact analysis, and third parties were not involved in any of them. As discussed in the IRFA and section 6 Economic Impact Analysis Report, consultations on water quality management include inter-agency consultations on regional water quality standards, which do not involve third parties, and project-specific consultations regarding point source water pollution, such as National Pollutant Discharge Elimination System (NPDES) permits issued to third parties in American Samoa, Guam, and CNMI. The third parties issued NPDES permits are either businesses or territorial or commonwealth governments that do not qualify as small entities. In addition, because no section 7 consultations on beach nourishment and shoreline protection projects occurred within the historical time frame selected for the economic impact analysis, no section 7 consultations on such projects were projected over the next ten years. As a result, no incremental costs are assigned to small entities for these activities. While consultations on aquaculture projects have the potential to involve third parties, the potential economic impacts to third parties are considered *de minimis.* Moreover, all of the historical aquaculture projects that resulted in consultations considered in the economic impact analysis were sponsored by public entities, none of which qualify as small entities.

Consultations on in-water and coastal construction and dredging and disposal (as determined by the 4(b)(2) Economic Impact Analysis Report, which is appendix C of the Information Report (NMFS, 2023)), all have the potential to involve third parties, such as recipients of Clean Water Act section 404 permits. These activities were combined into one broad industry category that may experience impacts to small entities: In-Water and Coastal Construction and Dredging. NAICS industries that are relevant to in-water and coastal construction and dredging activities include:

- Water and Sewer Line and Related Structures Construction (NAICS 237110).
- Highway, Street, and Bridge Construction (NAICS 237310).
- Other Heavy and Civil Engineering Construction (237990).
- Dredging and Surface Cleanup (NAICS 237990).

The IRFA relies on the estimated incremental impacts resulting from the proposed critical habitat designation, as described in section 6.0 of the Economic Impact Analysis Report. To be consistent with this analysis, the IRFA provides low-end and high-end estimates of the impacts to small entities. The IRFA estimates the impacts of the proposed coral critical habitat in terms of the percentage of revenues per small entity, which ranged from 0.20 percent under the low-end (IRFA, table 1) to 36.9 percent under the high-end (IRFA, table 2). These impacts are anticipated to be borne by the small entities engaged in in-water and coastal construction and dredging that consult with NMFS regarding the listed Indo-Pacific coral species critical habitat in the next 10 years. Impacts are presented in the IRFA for each of the three U.S. Pacific jurisdictional areas where one or more of the listed coral species occur and where small businesses engaged in the relevant activities have been identified—American Samoa, Guam, and CNMI. According to section 6.0 of the Economic Impact Analysis Report, two or fewer consultations on in-water

and coastal construction projects are forecasted to occur in both the NWHI and the PRIA. However, because no businesses are located in either the NWHI or the PRIA, it is not possible to determine what small entities, if any, would be affected. In any case, given that few consultations are expected to occur and that these consultations are likely to be informal, the potential costs to small entities associated with in-water and coastal construction projects in the NWHI and the PRIA are anticipated to be negligible.

The low-end estimate assumes no incremental project modifications occur because baseline permit conditions/regulations would provide sufficient protection to avoid adverse modification of critical habitat. Impacts to small entities are thus assumed to be due solely to the additional administrative costs of considering the potential for adverse effects to critical habitat during section 7 consultations. In addition, the low-end estimate assumes that trends in the frequency of informal consultations over the next 10 years will resemble those of the past 10 years (section 6.0 of the Economic Impact Analysis Report). The low-end estimate of total annualized impacts to small entities is $4,675 (IRFA, table 1).

The high-end estimate of the impacts to small entities assumes that all future projects related to in-water and coastal construction and dredging will require formal consultations and that there will be incremental project modification costs for all these future projects (section 6.0 of the Economic Impact Analysis Report). In order to present a conservative estimate of the impacts to small entities (*i.e.,* an estimate more likely to overstate impacts than understate them), the IRFA assumes that all project modification costs are borne by third parties. The high-end estimate of total annualized impacts to small entities is $872,331 (IRFA, table 1).

Given the uncertainty regarding which small entities in a given industry will need to consult with NMFS, this analysis estimates impacts to small entities under two different scenarios for both the low-end and high-end estimates. These scenarios are intended to reflect the range of uncertainty regarding the number of small entities that may be affected by the designation and the potential impacts of critical habitat designation on their annual revenues.

Under Scenario 1, the IRFA assumes that all third parties involved in future consultations are small entities and that incremental impacts for each territory or commonwealth (American Samoa, Guam, and CNMI) are distributed evenly across all of the entities in the respective territory or commonwealth. Scenario 1 accordingly reflects a high estimate of the number of potentially affected small entities (14 for both the low-end and high-end estimates) and a low estimate of the potential effect in terms of percent of revenue, except for American Samoa, where it is estimated that only one entity is conducting construction activities in the areas considered for critical habitat. The assumption under Scenario 1 is that 14 small entities will be involved in consultation annually reflects the forecast that approximately 14 consultations will occur annually on construction activities involving third parties. This assumes that each consultation on construction activities involves a unique small entity, including 1 small entity in American Samoa, 10 small entities in Guam, and 3 small entities in CNMI. For the low-end estimate, this analysis anticipates that approximately 14 small entities will incur $4,675 in annualized costs under Scenario 1, including $1,244 in costs to the America Samoa-based small entity, $281 in costs per Guam-based small entity, and $235 in costs per CNMI-based small entity. Annualized impacts of the rulemaking are estimated to make up less than 1 percent of average annual revenues of approximately $2.36 million for each affected small entity.[1] For the high-end estimate, this analysis anticipates that 14 small entities will incur $872,331 in annualized costs under Scenario 1, including $254,356 in costs to the America Samoa-based small entity, $48,953 in costs per Guam-based small entity, and $47,751 in costs per CNMI-based small entity. Annualized impacts of the rulemaking are estimated to make up 17.0 percent of average annual revenues of $1.5 million for the American Samoa-based entity, 2.1 percent of average annual revenues of approximately $2.37 million for Guam-based small entities, and 1.9 percent of average annual revenues of $2.47 million for CNMI-based small entities.

Under Scenario 2, this analysis assumes that all third parties participating in future consultations are small and that costs associated with each consultation action are borne each year by a single small entity within the potentially impacted construction industries. This method likely understates the number of small entities affected and overstates the likely impacts on the impacted small entity. For the low-end estimate, this analysis anticipates that a single small entity will bear $4,675 in annualized costs. These annualized impacts make up less than 1 percent of estimated average annual revenues of $2.36 million for the impacted small entity. For the high-end estimate, this analysis anticipates that a single small entity will bear $872,331 in annualized costs. These impacts represent approximately 37 percent of estimated average annual revenues for the impacted small entity.

As explained under *4(b)(2) Economic Impact Analysis,* we conclude that the actual economic impacts are likely to be much closer to the low-end scenario's projections than the high-end scenario's projections. In addition, economic benefits would be relatively high in the high-end scenario (because project modifications would provide better protection of coral reef ecosystems, which produce economic benefits), but non-existent in the low-end scenario (because there would be no project modifications, and thus no increased protection of coral reef ecosystems). Moreover, while Scenario 1 and Scenario 2 present a range of potentially affected entities and the associated revenue effects, we expect the actual number of small entities affected and revenue effects will be somewhere in the middle. In other words, some subset of the small entities in American Samoa, Guam, and CNMI greater than 2 and up to 14 will participate in section 7 consultations on Indo-Pacific coral critical habitat and bear associated impacts annually. We conclude that the economic impacts of the proposed coral critical habitat are likely to be much closer to those projected by the low-end scenario than the high-end scenario, and also that there would be low economic benefits. That is, we find that the economic analysis and IRFA support the conclusion that the proposed coral critical habitat would have low economic effects on small entities.

There are no record-keeping requirements associated with the rulemaking. Similarly, there are no reporting requirements.

No Federal laws or regulations duplicate or conflict with this proposed rule. However, the protection of listed species and habitat under critical habitat may overlap other sections of the ESA. For instance, listing of the threatened Indo-Pacific corals under the ESA already requires Federal agencies to consult with NMFS to avoid jeopardy to the species. However, this analysis only examines the incremental impacts to small entities from the proposed critical habitat rule.

The RFA requires consideration of alternatives to the proposed rule that

[1] Average annual revenues were calculated based on company-specific revenue data sourced from the Dun & Bradstreet Hoovers database.

would minimize significant economic impacts to small entities. We considered the following alternatives when developing the proposed critical habitat rule.

Alternative 1: No Action Alternative

Under the no action alternative, we would not designate critical habitat for the listed corals. The alternative of not designating critical habitat was considered in this IRFA but rejected because, in this case, it would violate the legal requirements of the ESA. Moreover, we have determined that the physical feature forming the basis for critical habitat designation is essential to the corals' conservation, and conservation for these species will not succeed without this feature being available. Thus, the lack of protection of the critical habitat feature from adverse modification could result in continued declines in abundance of the listed corals, and loss of associated economic and other values these corals provide to society, such as recreational and commercial fishing and diving services, and shoreline protection services. Small entities engaged in some coral reef-dependent industries would be adversely affected by the continued declines in the listed corals. Thus, the no action alternative is not necessarily a ''no cost'' alternative for small entities.

Alternative 2: Preferred Alternative

Under this alternative, the areas designated are waters ranging from 0 to 10 m deep to 0 to 50 m deep in the 15 units located in American Samoa, Guam, CNMI, the NWHI, and the PRIA. As noted in the Critical Habitat Information Report, the following areas are ineligible for proposed critical habitat: parts of Guam, parts of Tinian all of Farallon de Medinilla, and all of Wake Atoll. An analysis of the costs and benefits of the preferred alternative designation is presented in appendix C of the Information Report. Relative to the no action alternative, this alternative will likely involve an increase in administrative and project modification costs for those section 7 consultations required to avoid adverse impacts to critical habitat, above and beyond those required due to the corals' listing alone. We have determined that no categories of activities would require consultation, and no categories of project modifications would be required, in the future solely due to this rulemaking and the need to prevent adverse modification of critical habitat. Similarly, all categories of activities have similar potential to adversely impact corals and critical habitat, and the same project modifications would remedy both sets of adverse effects. However, in some areas of proposed coral critical habitat, there may be locations with no colonies of listed corals, especially after a natural disturbance event (*e.g.,* coral bleaching or crown-of-thorns starfish outbreak). For future Federal actions that have small action areas within such locations, costs to small entities could occur, and would represent an incremental impact of this rulemaking. On the other hand, because projects with larger or more diffuse action areas are more likely to impact both the listed corals and their critical habitat, consultation and project modification costs associated with those projects would more likely be coextensive with the coral listings or another regulatory requirement. The preferred alternative was selected because it best implements the critical habitat provisions of the ESA by including the well-defined environmental features essential to the species' conservation, and due to the important conservation benefits that will result from this alternative relative to the no action alternative.

Alternative 3: Designating a Subset of Areas

A third alternative was considered that would have excluded from designation those areas in which, on economic or national security bases, the benefits of exclusion outweigh the benefits of inclusion. No areas, other than those excluded in the Preferred Alternative on the basis of national security impacts, were identified where it was determined that the benefits of exclusion outweigh the conservation value of designation to the species. In addition, the public did not submit comments on the benefits of exclusion and inclusion in general, nor were comments submitted on those benefits as they relate to specific areas. Thus, we rejected this alternative because it would lessen the conservation value to the species.

Coastal Zone Management Act (16 U.S.C. 1451 et seq.)

Under section 307(c)(1)(A) of the Coastal Zone Management Act (CZMA) and its implementing regulations (15 CFR part 923), each Federal activity within or near coastal zones that has reasonably foreseeable effects on any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State coastal management programs. Upon publication of the proposed rule (85 FR 76262, November 27, 2020), we determined that the proposed designation of critical habitat for the listed corals would have no reasonably foreseeable effects on the enforceable policies of Guam's, CNMI's, and American Samoa's approved Coastal Zone Management Programs, and submitted our determinations to each of the responsible Territorial agencies.

CNMI and Guam formally objected to our determinations on February 12, 2021, and March 26, 2021, respectively. Both Territories stated that there were reasonably foreseeable coastal effects of coral critical habitat for several reasons, including administrative burdens, economic impacts, and third-party impacts. CNMI requested a consistency determination and identified specific enforceable policies to be addressed. Guam interpreted our determination as a consistency determination, and requested a new consistency determination that addressed specific enforceable policies. In response to these objections and concerns expressed informally by American Samoa, we held a meeting with the three Territorial CZM Programs (American Samoa, Guam, and CNMI) on July 27, 2021. We explained the basis for our determinations at the July meeting and scheduled follow-up meetings with representatives of CNMI and Guam CZM Programs to review their objections in detail.

On September 2, 2021, and September 7, 2021, we held meetings with CNMI's and Guam's CZM Programs, respectively, and the NOAA Office of Coastal Management, to review the Territories' objections to our determinations. The Territories explained why they find that coral critical habitat, as proposed in 2020, would result in administrative burdens, economic impacts, and third-party impacts. The Territorial representatives stated that they believe incomplete biological and economic data were used in the 2020 proposed rule, resulting in the habitat needs of the listed corals being overstated, and the extent of economic impacts of critical habitat being understated in the proposed rule. Subsequently, the Territories requested that NMFS work with their experts to obtain more thorough and recent biological and economic data to inform the proposed coral critical habitat rule. On September 30, 2021, and October 28, 2021, NMFS held meetings with biologists based in American Samoa, CNMI, Guam, and Honolulu to review records of listed corals in the Territories, which contributed to the development of appendix A in the Information Report (NMFS, 2023). On September 23, 2021, and September 25,

2021, Guam and CNMI submitted letters to NMFS with updated economic data, which was used in section 5.1.7 of the Information Report (NMFS, 2023).

In making revisions to the 2020 proposed critical habitat, in addition to considering other public comments received, we considered the comments submitted by each of the Territories regarding their respective concerns about the proposed critical habitat. With the withdrawal of the 2020 proposed rule, we also withdraw the November 27, 2020, CZMA determinations for the American Samoa, Guam, and CNMI CZM Programs. Consistent with the CZMA, we will determine how to proceed for the critical habitat now being proposed and coordinate accordingly with the responsible agencies in American Samoa, Guam, CNMI, and Hawaii.

Paperwork Reduction Act (44 U.S.C. 3501 et seq.)

This proposed rule does not contain any new or revised collection of information, defined by the Paperwork Reduction Act of 1995. Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

This proposed rule will not produce a Federal mandate. The designation of critical habitat does not impose a legally-binding duty on non-Federal government entities or private parties. The only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7 of the ESA. Non-Federal entities that receive Federal funding, assistance, permits, or otherwise require approval or authorization from a Federal agency for an action may be indirectly affected by the designation of critical habitat, but the Federal agency has the legally binding duty to avoid destruction or adverse modification of critical habitat.

We do not anticipate that this proposed rule will significantly or uniquely affect small governments. Therefore, a Small Government Action Plan is not required.

Consultation and Coordination With Indian Tribal Governments (E.O. 13175)

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, Executive orders, judicial decisions, and agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government.

This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States towards Indian Tribes and with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. Pursuant to these authorities, lands have been retained by Indian Tribes or have been set aside for tribal use. These lands are managed by Indian Tribes in accordance with tribal goals and objectives within the framework of applicable treaties and laws. Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, outlines the responsibilities of the Federal Government in matters affecting tribal interests. The proposed critical habitat designations for threatened Indo-Pacific corals are located in U.S. Pacific Islands and therefore do not have tribal implications in accordance with Executive Order 13175.

Environmental Justice and Racial Equity (E.O.s 12898, 14096, 14019, 13985)

The designation of critical habitat is not expected to have a disproportionately high effect on minority populations or low-income populations. The purpose of this rulemaking is to protect and conserve ESA-listed species through the designation of critical habitat and is expected to help promote a healthy environment; thus, we do not anticipate minority populations or low-income populations to experience disproportionate and adverse human health or environmental burdens. The designation of critical habitat is not expected to disproportionately affect minority populations, low-income populations, or populations otherwise adversely affected by persistent poverty or inequality. Further, it is not expected to create any barriers to opportunity for underserved communities.

List of Subjects and Maps

50 CFR Part 223

Endangered and threatened species, Exports, Imports, Transportation.

50 CFR Part 226

Endangered and threatened species.

Dated: November 21, 2023.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, we propose to amend 50 CFR parts 223 and 226 as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531 1543; subpart B, § 223.201–202 also issued under 16 U.S.C. 1361 *et seq.;* 16 U.S.C. 5503(d) for § 223.206(d)(9).

■ 2. In § 223.102(e), in the table, under the heading ''Corals'' revise the entries for ''*Acropora globiceps,*'' ''*Acropora retusa,*'' ''*Acropora speciosa,*'' ''*Euphyllia paradivisa,*'' and ''*Isopora crateriformis*'' to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(e) * * *

Species [1]			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
*	*	*	*	*	*
Corals					
Coral, [no common name]	*Acropora globiceps*	Entire species	79 FR 53852, Sept. 10, 2014	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Acropora retusa*	Entire species	79 FR 53852, Sept. 10, 2014	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Acropora speciosa*	Entire species	79 FR 53852, Sept. 10, 2014	*226.230*	NA.

Species [1]			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
*	*	*	*	*	*
Coral, [no common name]	*Euphyllia paradivisa*	Entire species	79 FR 53852, Sept. 10, 2014	*226.230*	NA.
*	*	*	*	*	*
Coral, [no common name]	*Isopora crateriformis*	Entire species	79 FR 53852, Sept. 10, 2014	*226.230*	NA.
*	*	*	*	*	*

[1] Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

PART 226—DESIGNATED CRITICAL HABITAT

■ 3. The authority citation for part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

■ 4. Add § 226.231 to read as follows:

§ 226.231 Critical habitat for Acropora globiceps, Acropora retusa, Acropora speciosa, Euphyllia paradivisa, and Isopora crateriformis.

Critical habitat is designated in the following jurisdictions for the following species as depicted in the maps below and described in paragraphs (a) through (e) of this section. The maps can be viewed or obtained with greater resolution (available at *https://www.fisheries.noaa.gov/action/proposed-rule-designate-critical-habitat-threatened-indo-pacific-corals*) to enable a more precise inspection of the proposed critical habitat for *A. globiceps, A. retusa, A. speciosa, E. paradivisa,* and *I. crateriformis.*

(a) *Critical habitat locations.* Critical habitat is designated for the following species in the following jurisdictions:

TABLE 1 TO PARAGRAPH (a)

Species	State—counties (or other jurisdiction)
Acropora globiceps	American Samoa (AS), Guam (Gu), Commonwealth of the Northern Mariana Islands (CNMI), Pacific Remote Island Areas (PRIA), Hawaii (HI).
Acropora retusa	AS, PRIA.
Acropora speciosa	AS.
Euphyllia paradivisa	AS.
Isopora crateriformis	AS.

(b) *Critical habitat boundaries.* Except as noted in paragraph (d) of this section, critical habitat for the five species includes all specific areas depicted in the maps below.

(c) *Essential feature.* The feature essential to the conservation of *A. globiceps, A. retusa, A. speciosa, E. paradivisa* and *I. crateriformis* is: Sites that support the normal function of all life stages of the corals, including reproduction, recruitment, and maturation. These sites are natural, consolidated hard substrate or dead coral skeleton, which is free of algae and sediment at the appropriate scale at the point of larval settlement or fragment reattachment, and the associated water column. Several attributes of these sites determine the quality of the area and influence the value of the associated feature to the conservation of the species:

(1) Substrate with presence of crevices and holes that provide cryptic habitat, the presence of microbial biofilms, or presence of crustose coralline algae;

(2) Reefscape with no more than a thin veneer of sediment and low occupancy by fleshy and turf macroalgae;

(3) Marine water with levels of temperature, aragonite saturation, nutrients, and water clarity that have been observed to support any demographic function; and

(4) Marine water with levels of anthropogenically-introduced (from humans) chemical contaminants that do not preclude or inhibit any demographic function.

(d) *Areas not included in critical habitat.* Critical habitat does not include the following particular areas where they overlap with the areas described in paragraphs (a) through (c) of this section:

(1) Pursuant to ESA section 4(a)(3)(B)(i), all areas subject to the 2017 Wake Island and 2019 Joint Region Marianas Integrated Natural Resources Management Plans;

(2) Managed areas that do not provide the quality of substrate essential for the conservation of the five Indo-Pacific corals are defined as particular areas whose consistently disturbed nature renders them poor habitat for coral growth and survival over time. These managed areas include specific areas where the substrate has been disturbed by planned management authorized by local, territorial, State, or Federal governmental entities at the time of critical habitat designation, and will continue to be periodically disturbed by such management. Examples include, but are not necessarily limited to, dredged navigation channels, shipping basins, vessel berths, and active anchorages. A comprehensive list of managed areas is provided in appendix B of the Information Report (NMFS, 2023);

(3) Existing artificial substrates including but not limited to: fixed and floating structures, such as aids-to-navigation (AToNs), seawalls, wharves, boat ramps, fishpond walls, pipes, submarine cables, wrecks, mooring balls, docks, aquaculture cages. A comprehensive list of artificial substrates is provided in appendix B of the Information Report (NMFS, 2023).

(e) *Critical habitat maps.* The specific areas of critical habitat within the 16 island units for the 5 listed coral species are shown on the following 24 maps. These black and white maps are based

on the maps in the Information Report (NMFS, 2023) that are color-coded for the listed coral species. Multiple substrate data sources were used for the maps, as cited in the island sub-sections in section 3.4 of the Information Report (NMFS, 2023).

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Figure 1 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Tutuila and Offshore Banks.

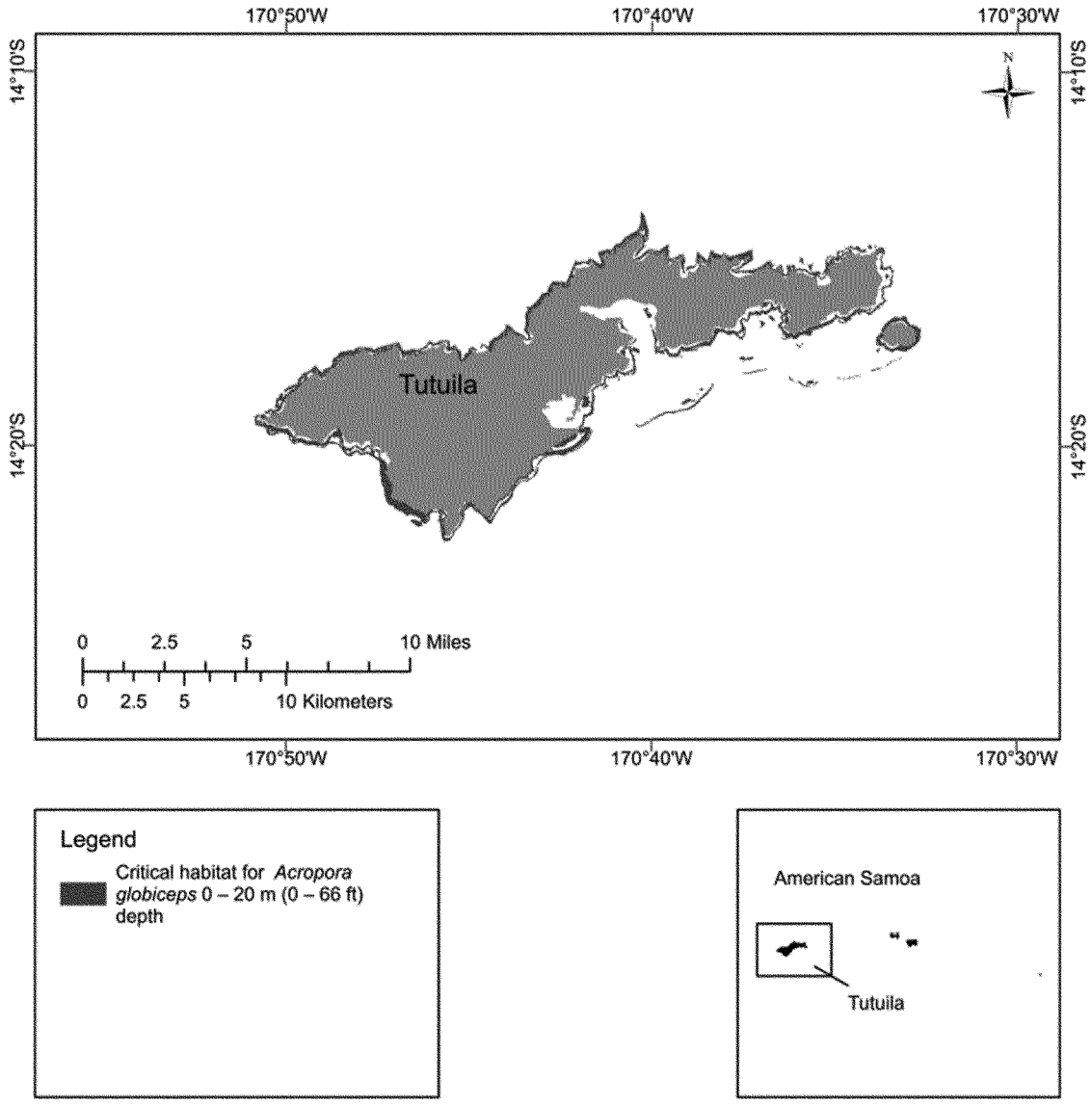


Figure 2 to paragraph (e). Proposed critical habitat for *Acropora retusa*, Tutuila and Offshore Banks.

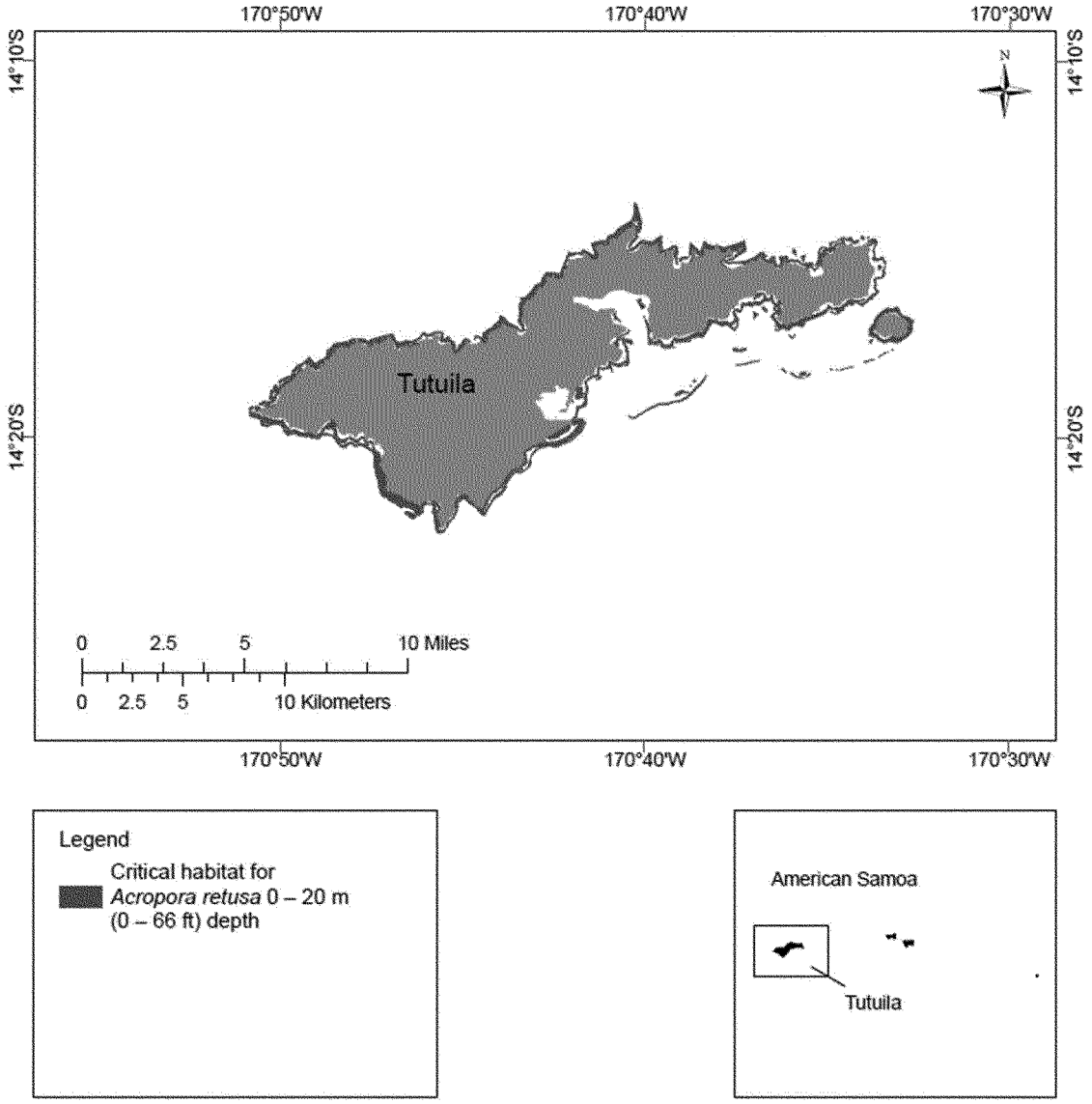


Figure 3 to paragraph (e). Proposed critical habitat for *Acropora speciosa*, Tutuila and Offshore Banks.

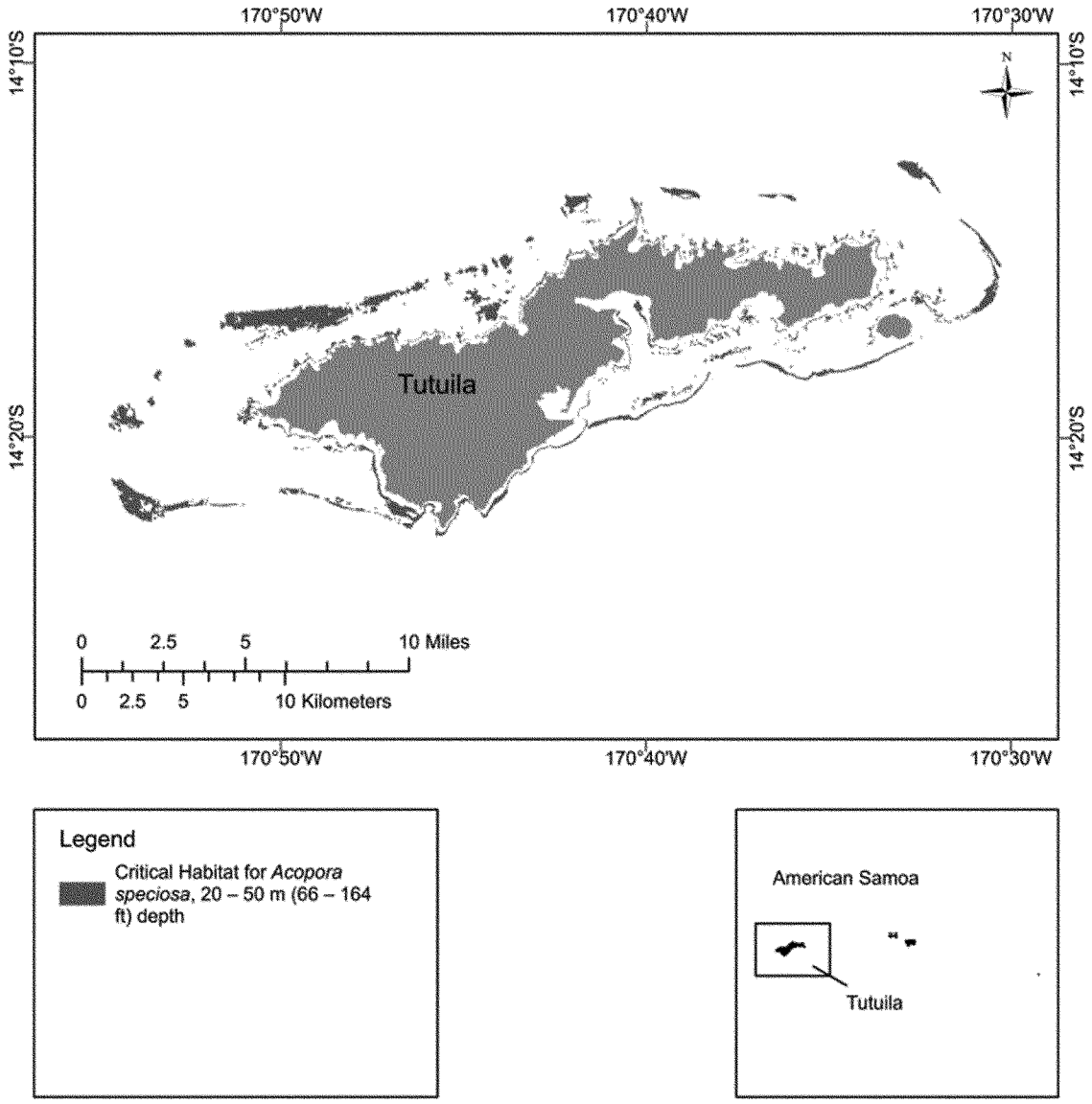


Figure 4 to paragraph (e). Proposed critical habitat for *Euphyllia paradivisa*, Tutuila and Offshore Banks.

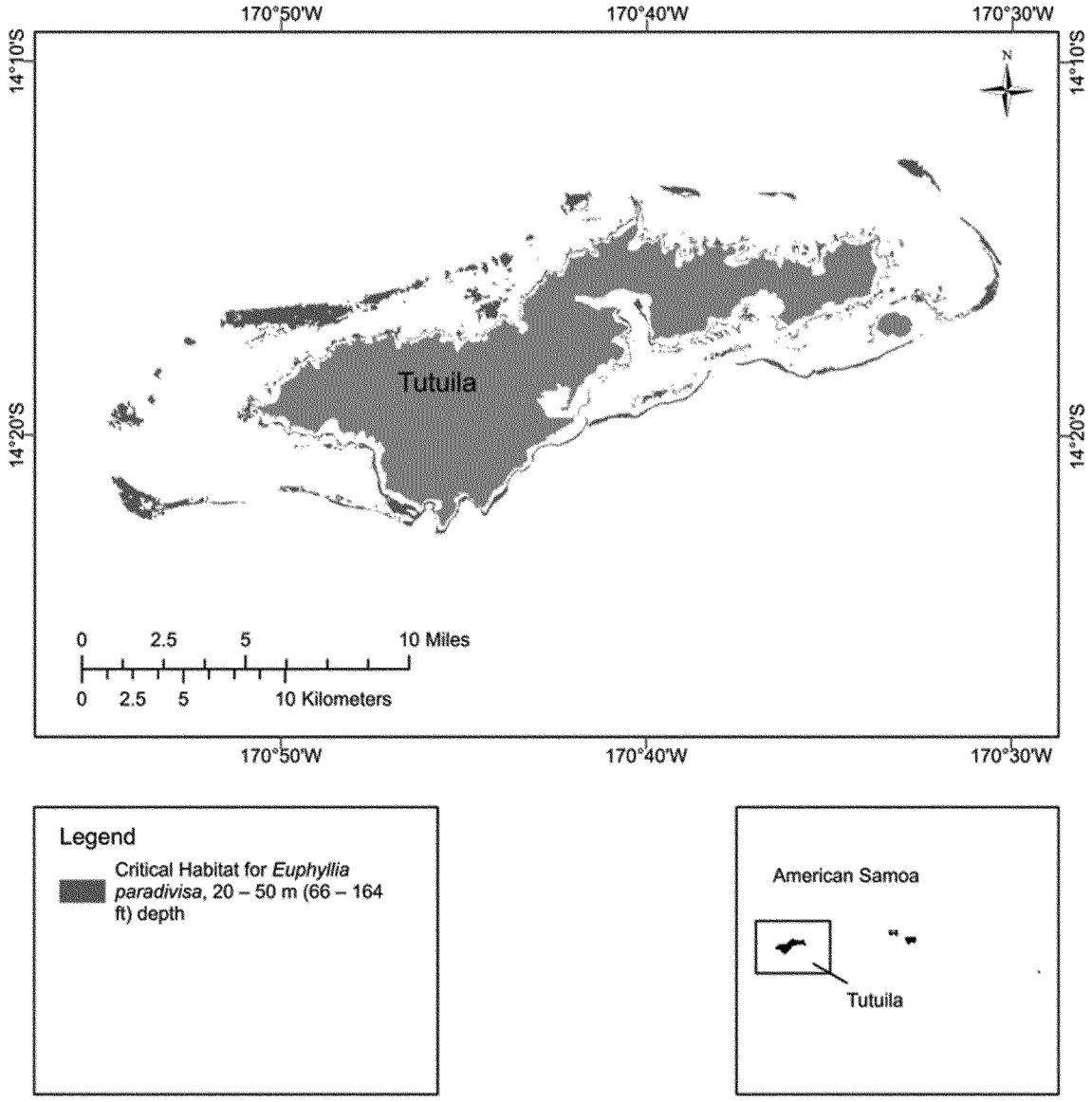


Figure 5 to paragraph (e). Proposed critical habitat for *Isopora crateriformis*, Tutuila and Offshore Banks.

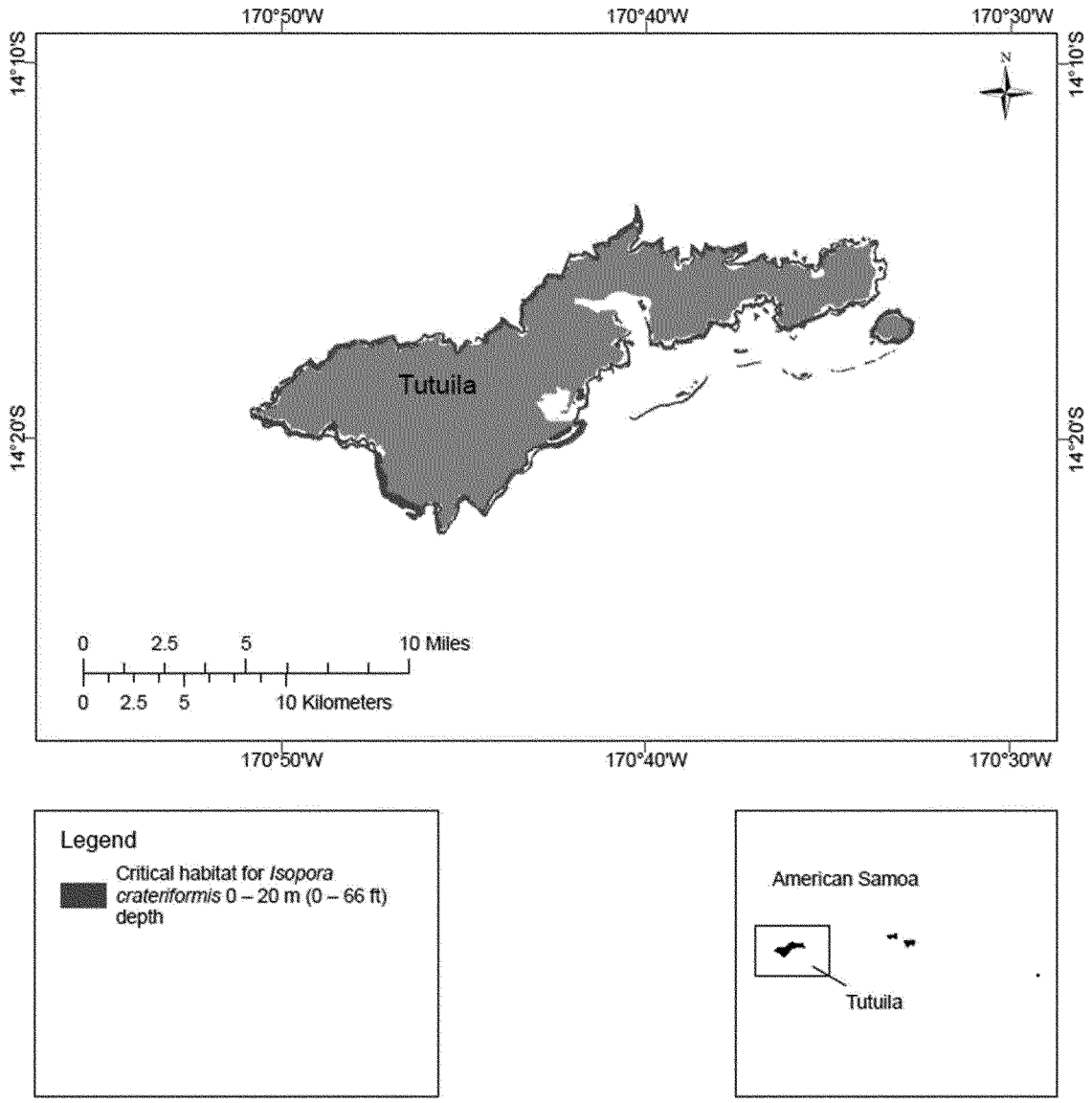


Figure 6 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Ofu-Olosega.

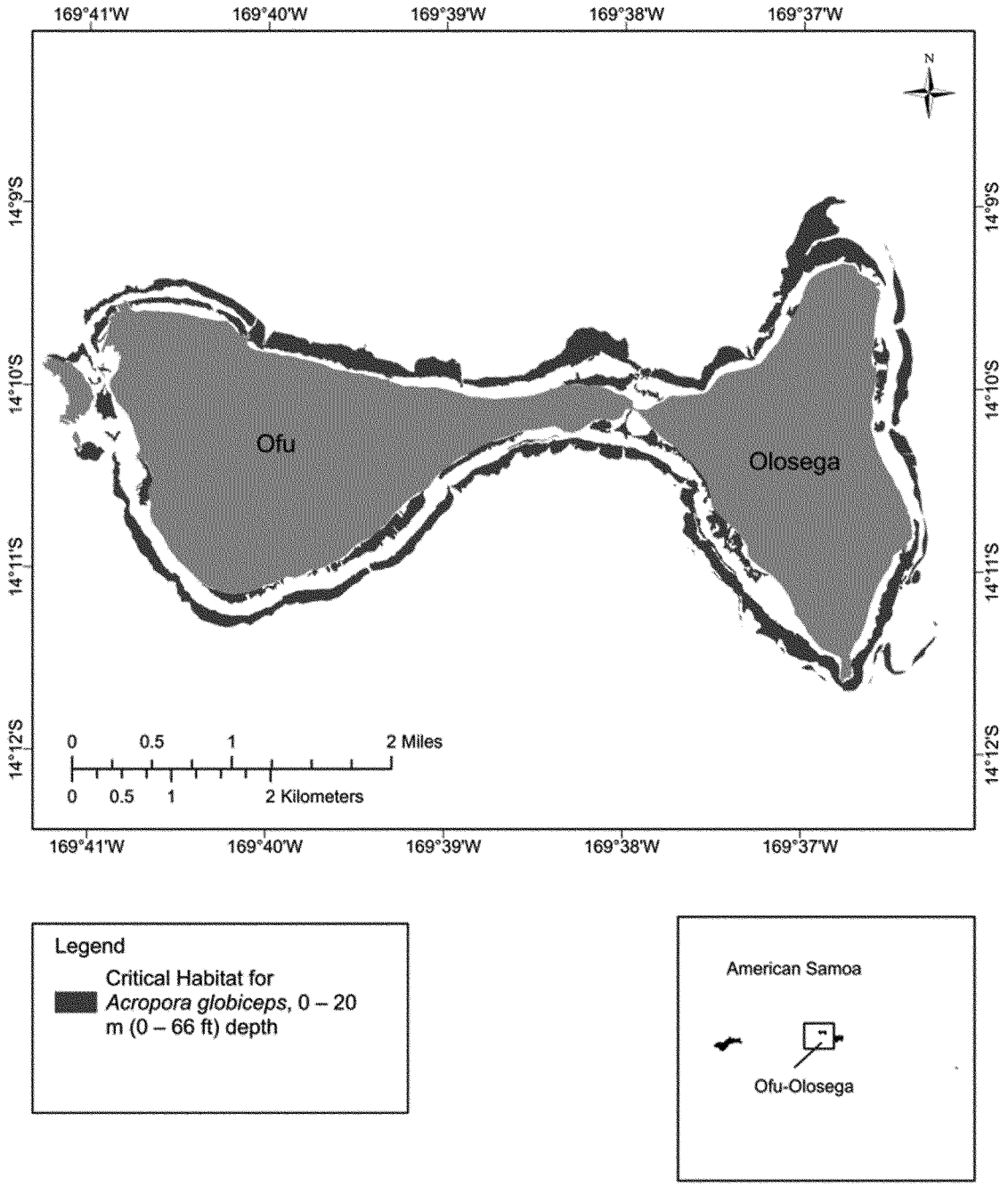


Figure 7 to paragraph (e). Proposed critical habitat for *Acropora retusa*, Ofu-Olosega.

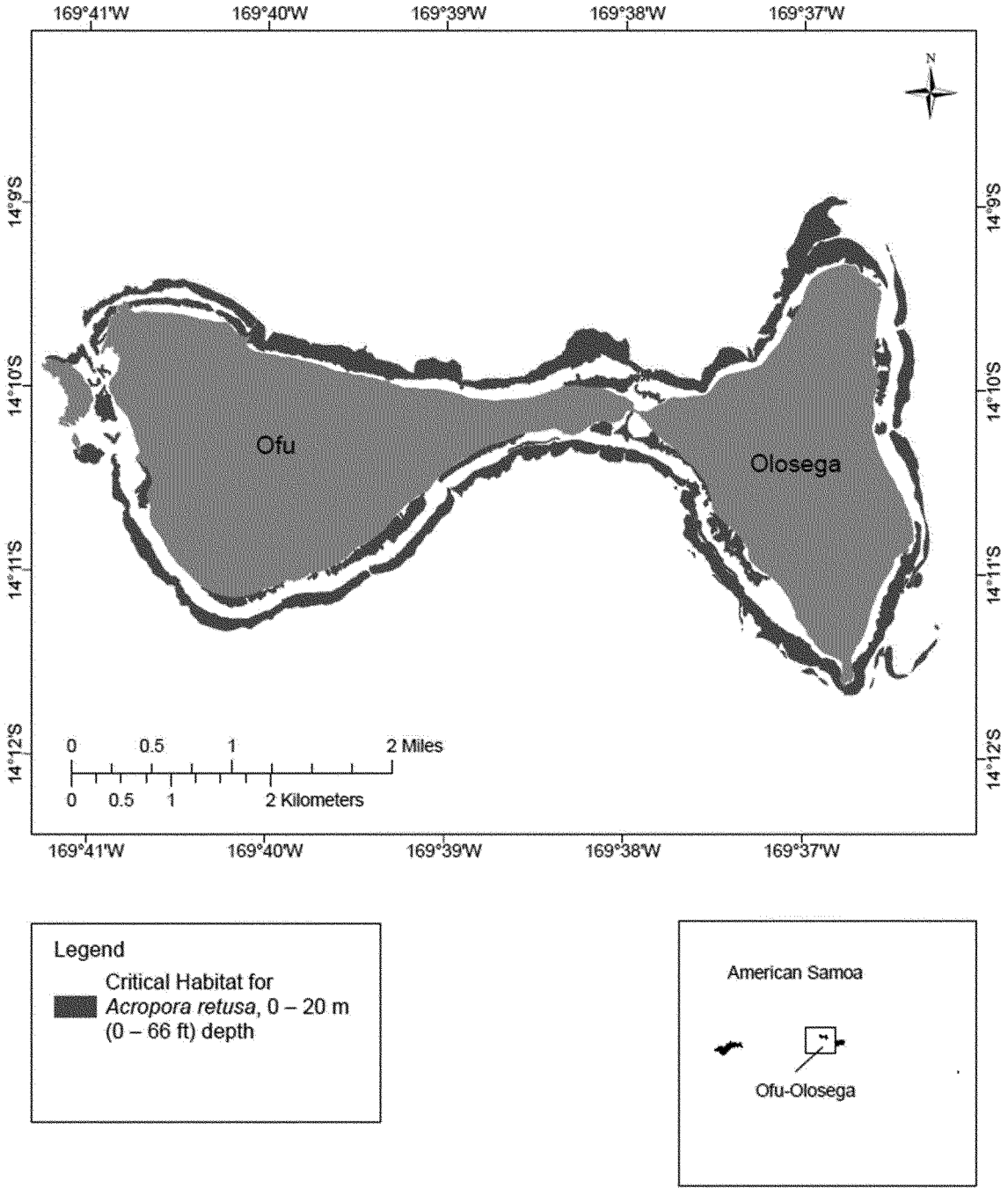


Figure 8 to paragraph (e). Proposed critical habitat for *Isopora crateriformis*, Ofu-Olosega.

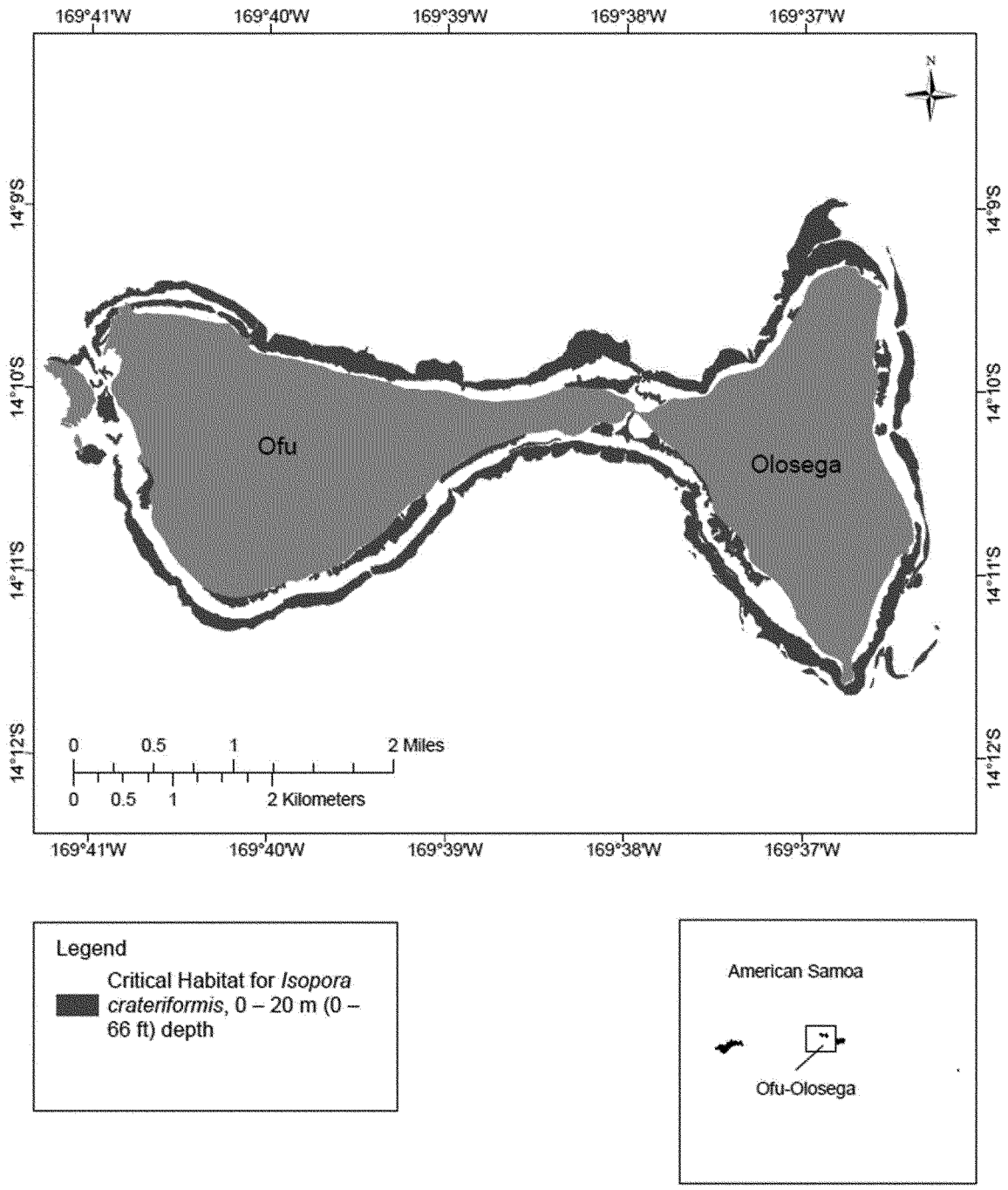


Figure 9 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Ta'u.

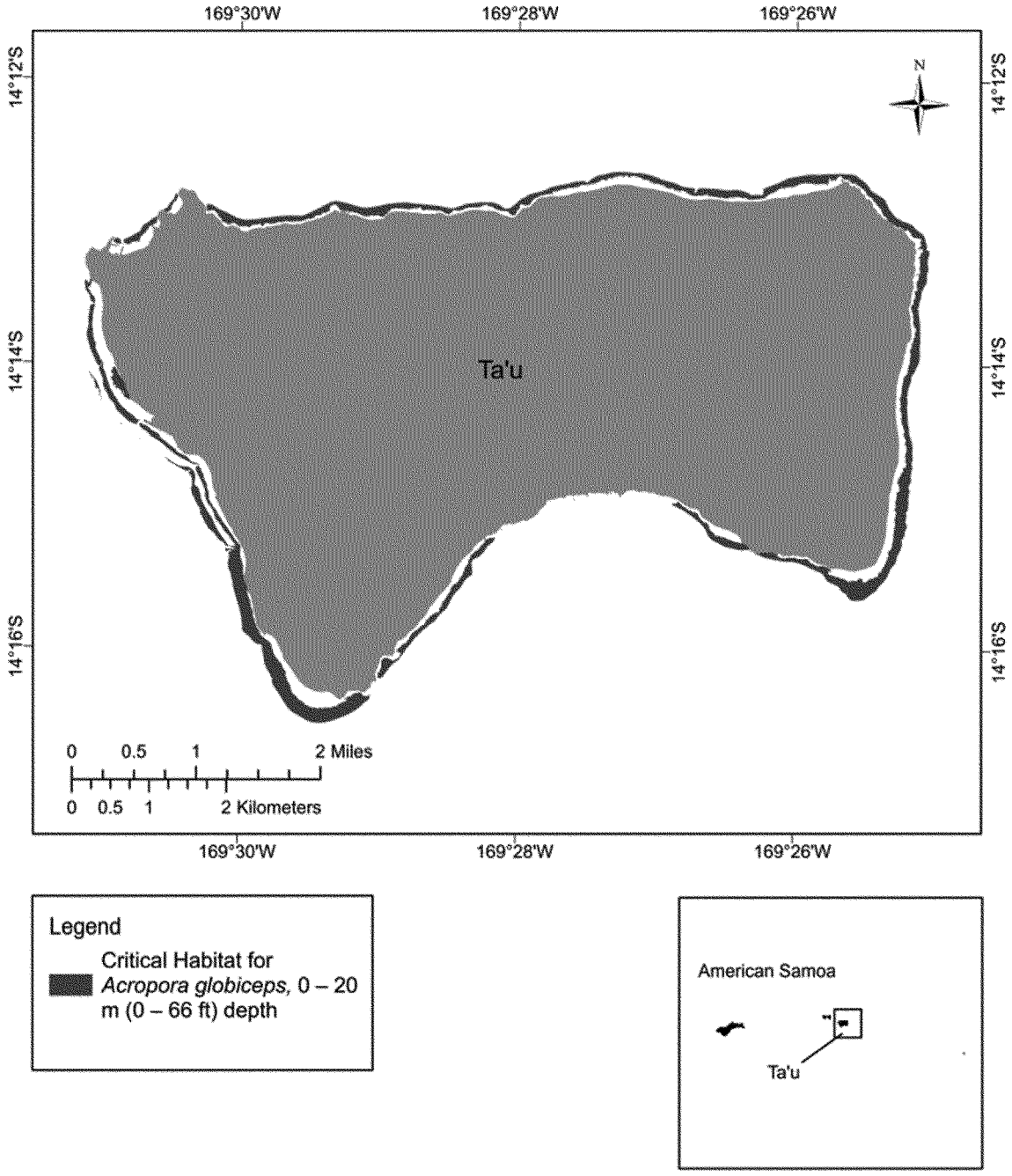


Figure 10 to paragraph (e). Proposed critical habitat for *Isopora crateriformis*, Ta'u.

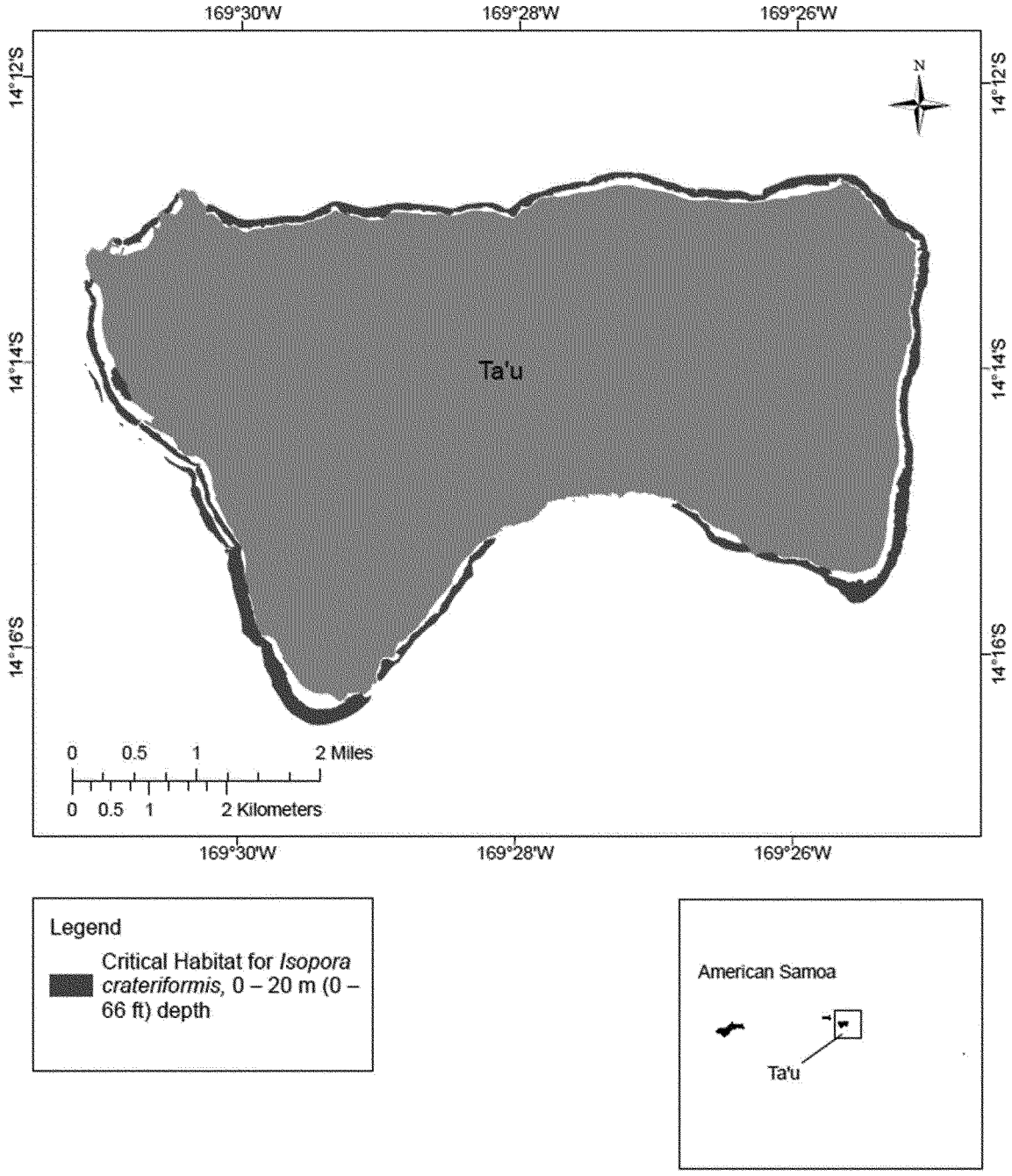


Figure 11 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Rose Atoll.

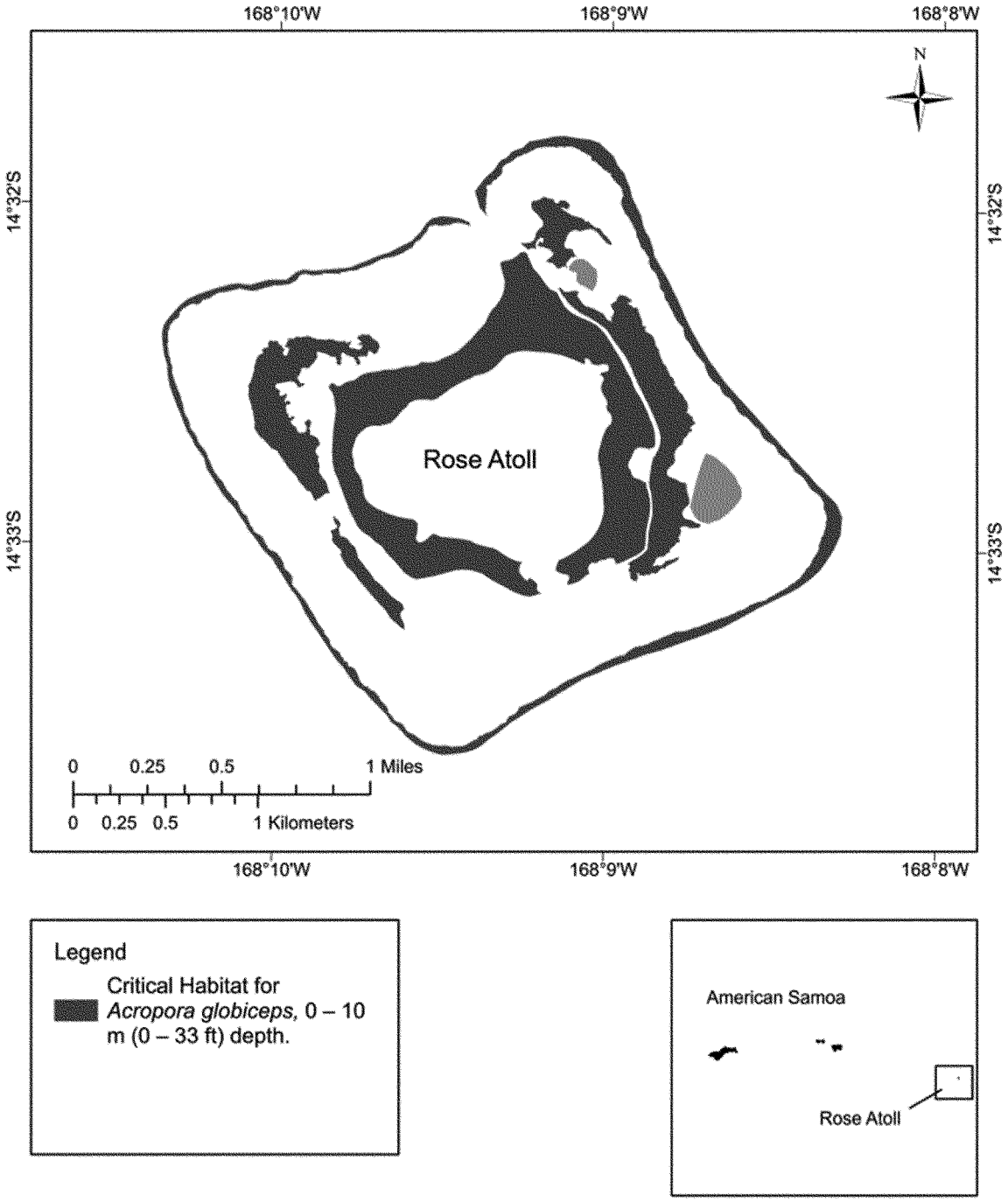


Figure 12 to paragraph (e). Proposed critical habitat for *Acropora retusa*, Rose Atoll.

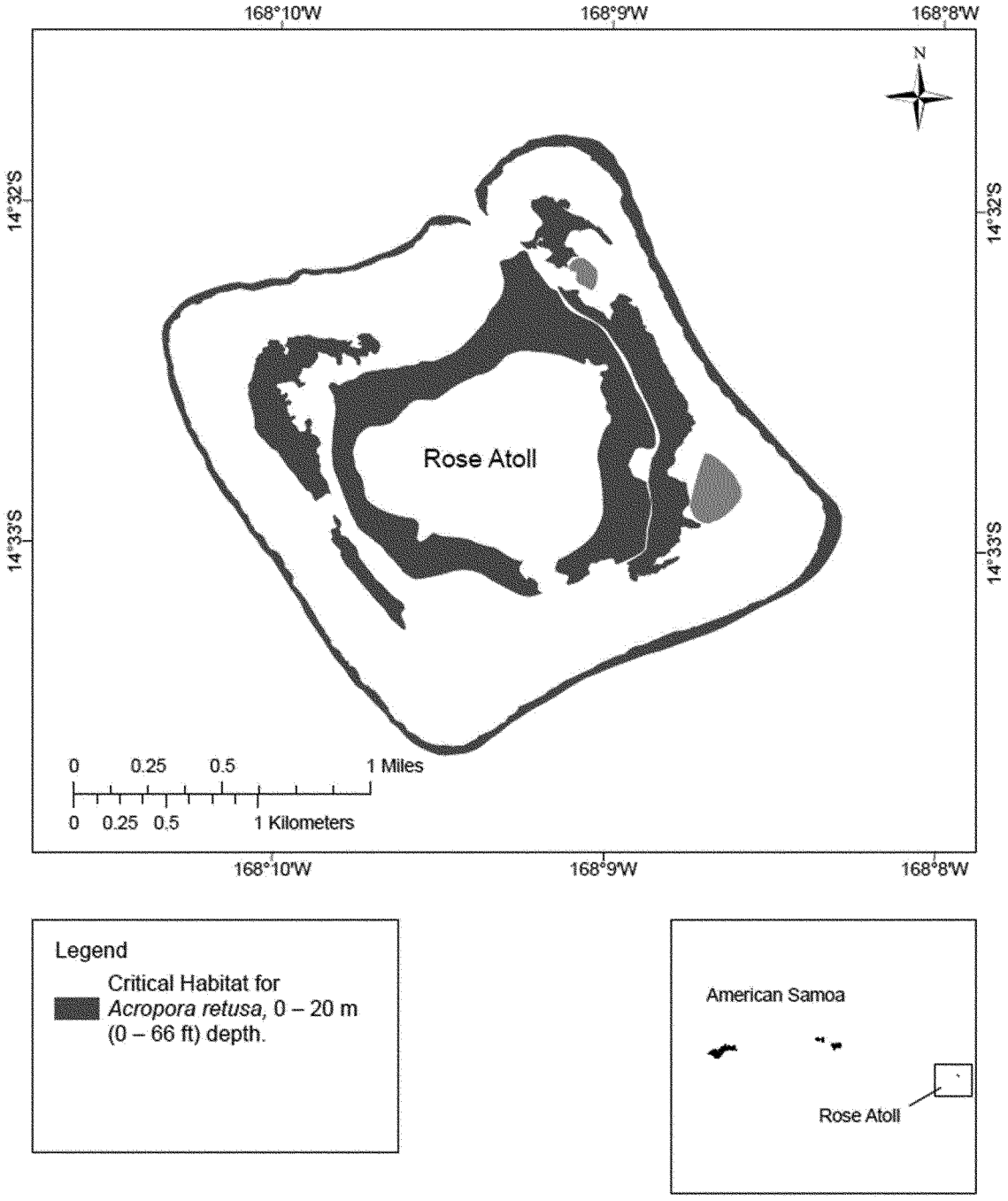


Figure 13 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Guam.

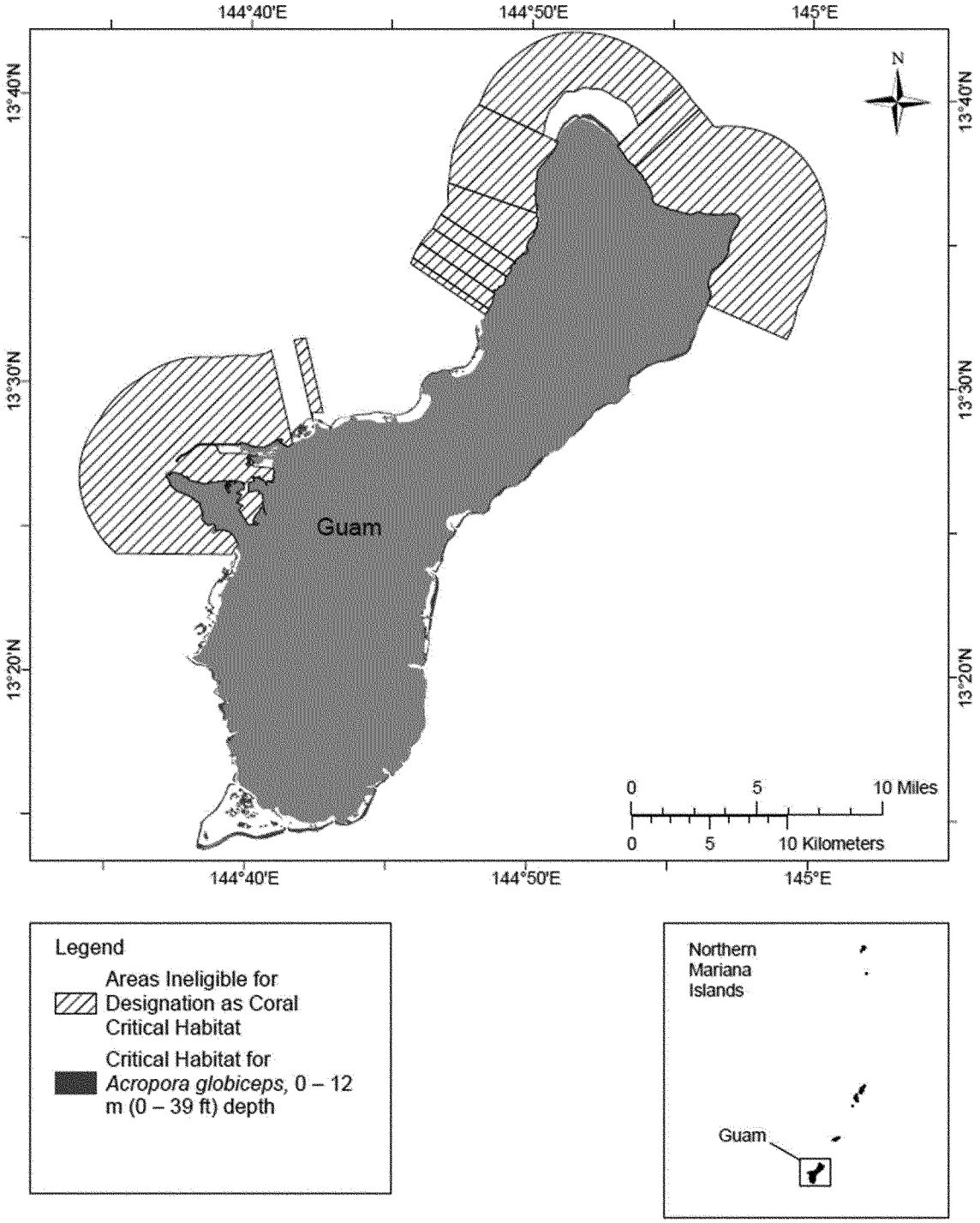


Figure 14 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Rota.

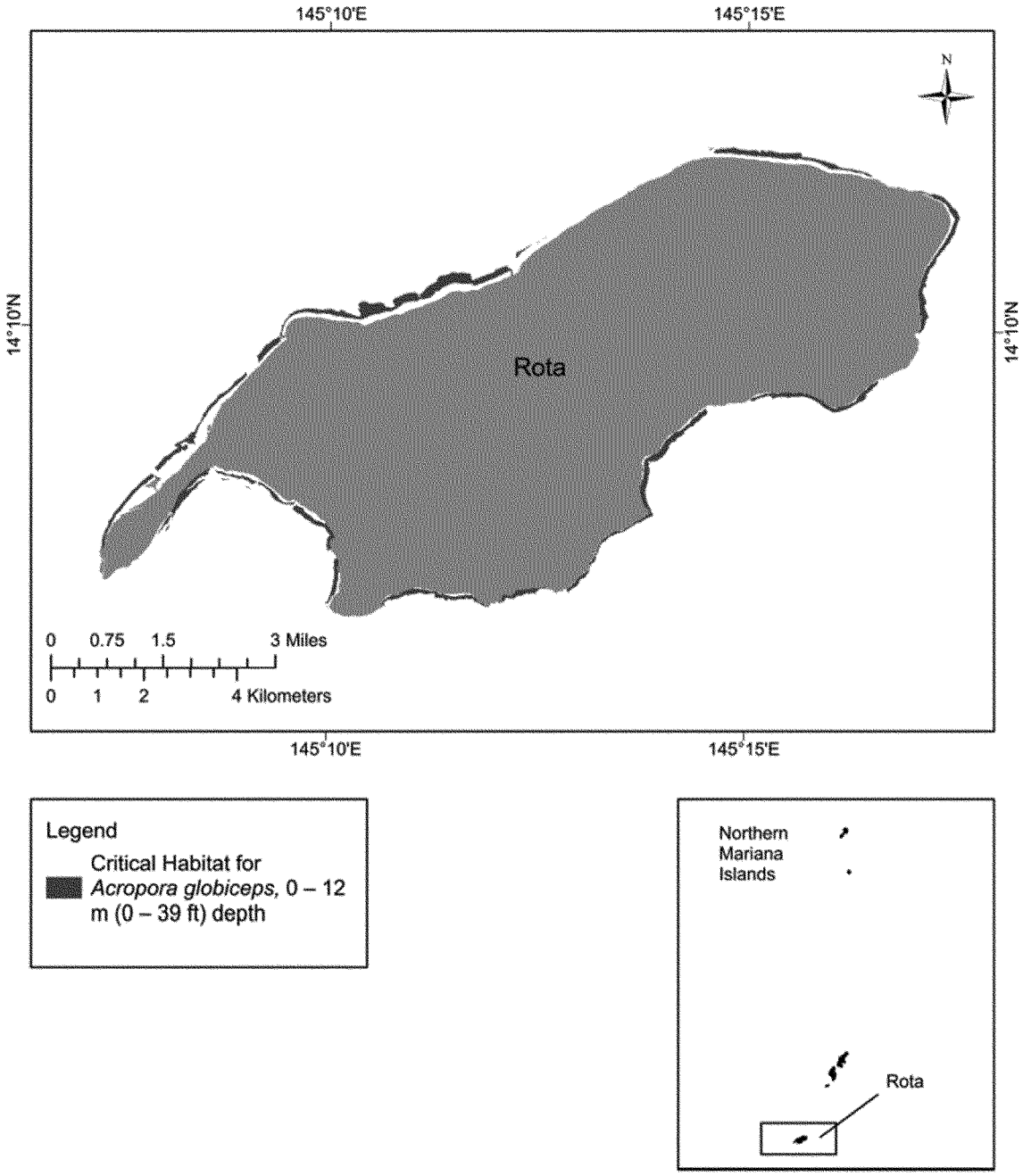


Figure 15 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Aguijan.

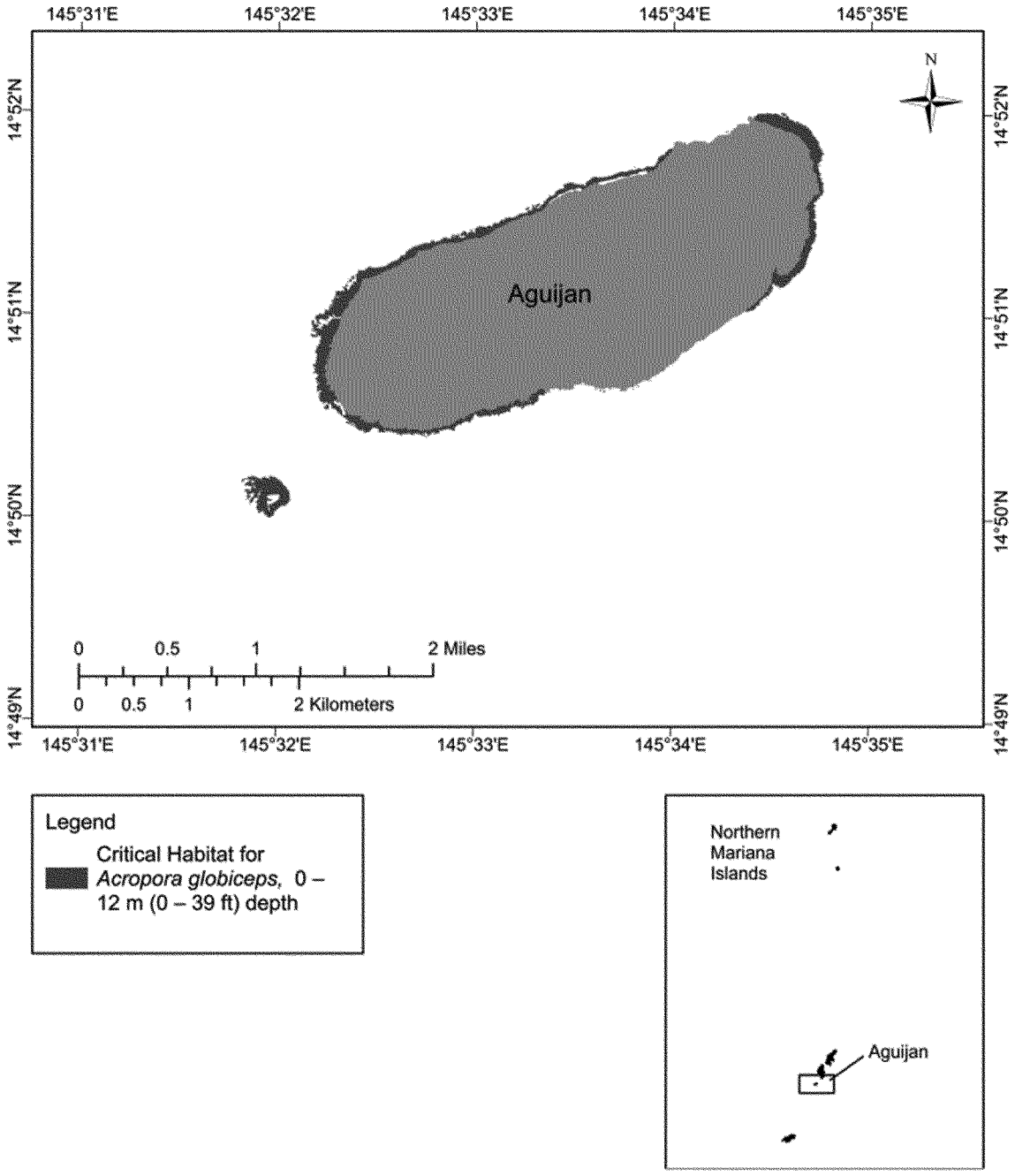


Figure 16 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Tinian.

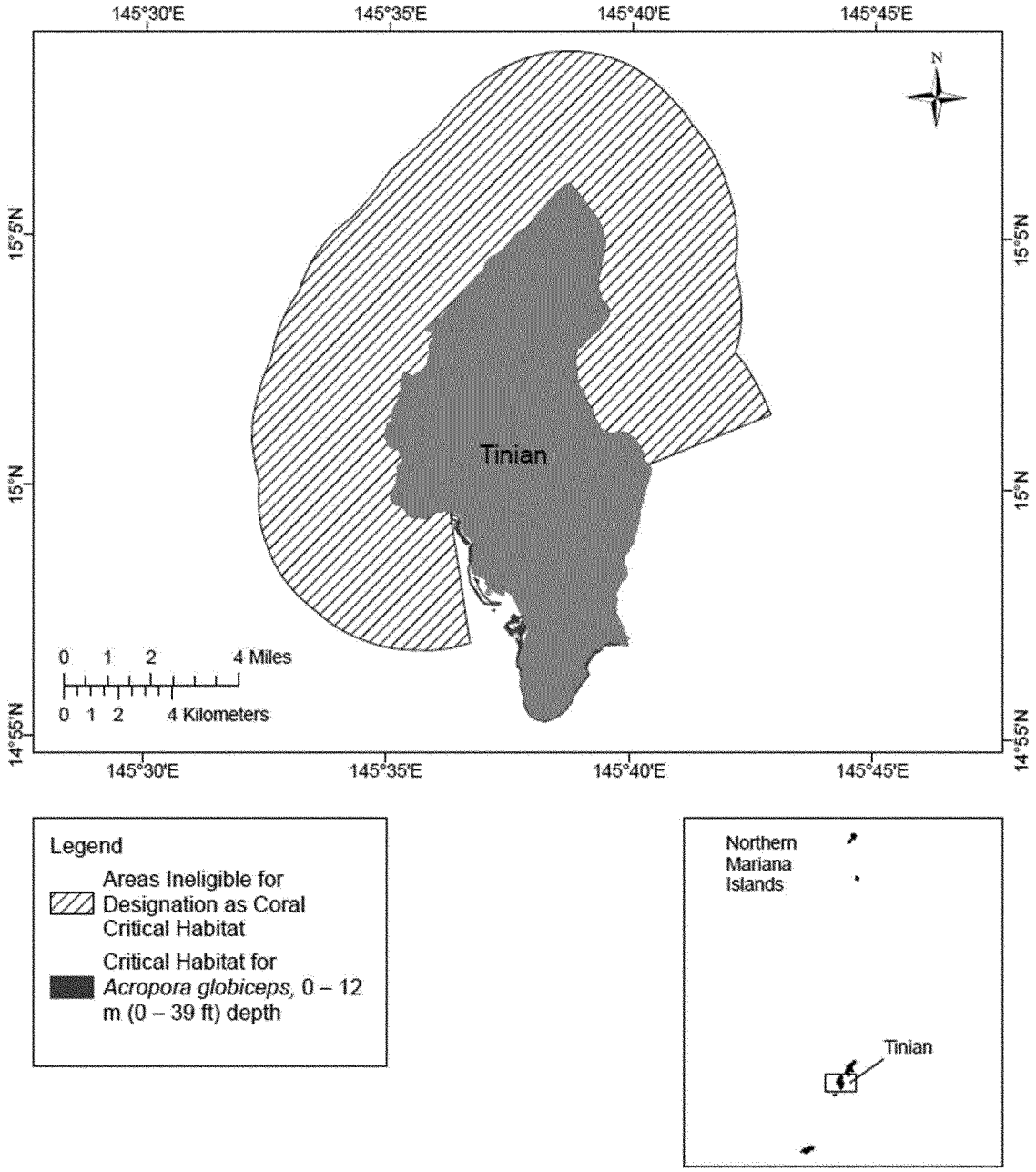


Figure 17 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Saipan.

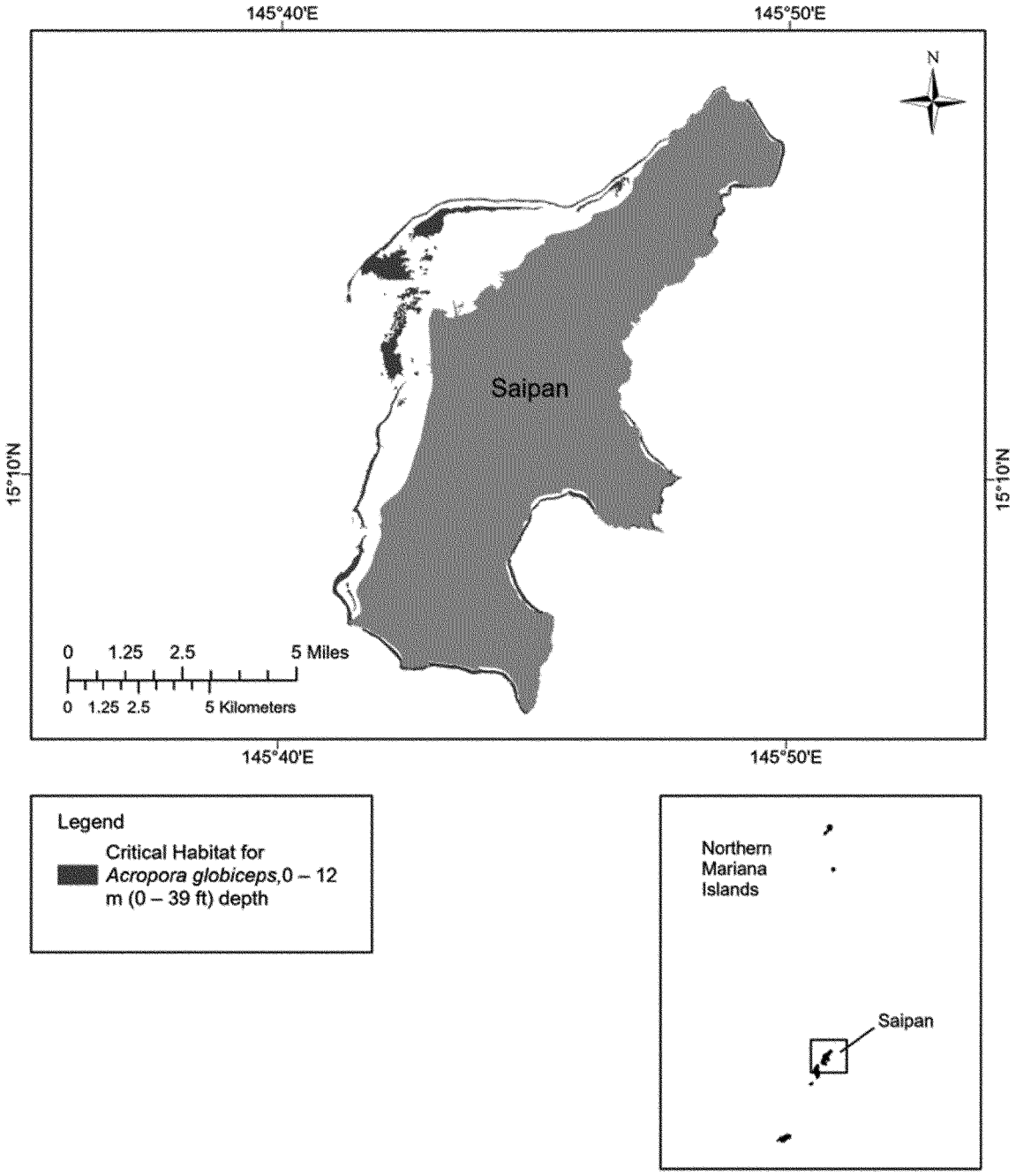


Figure 18 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Alamagan.

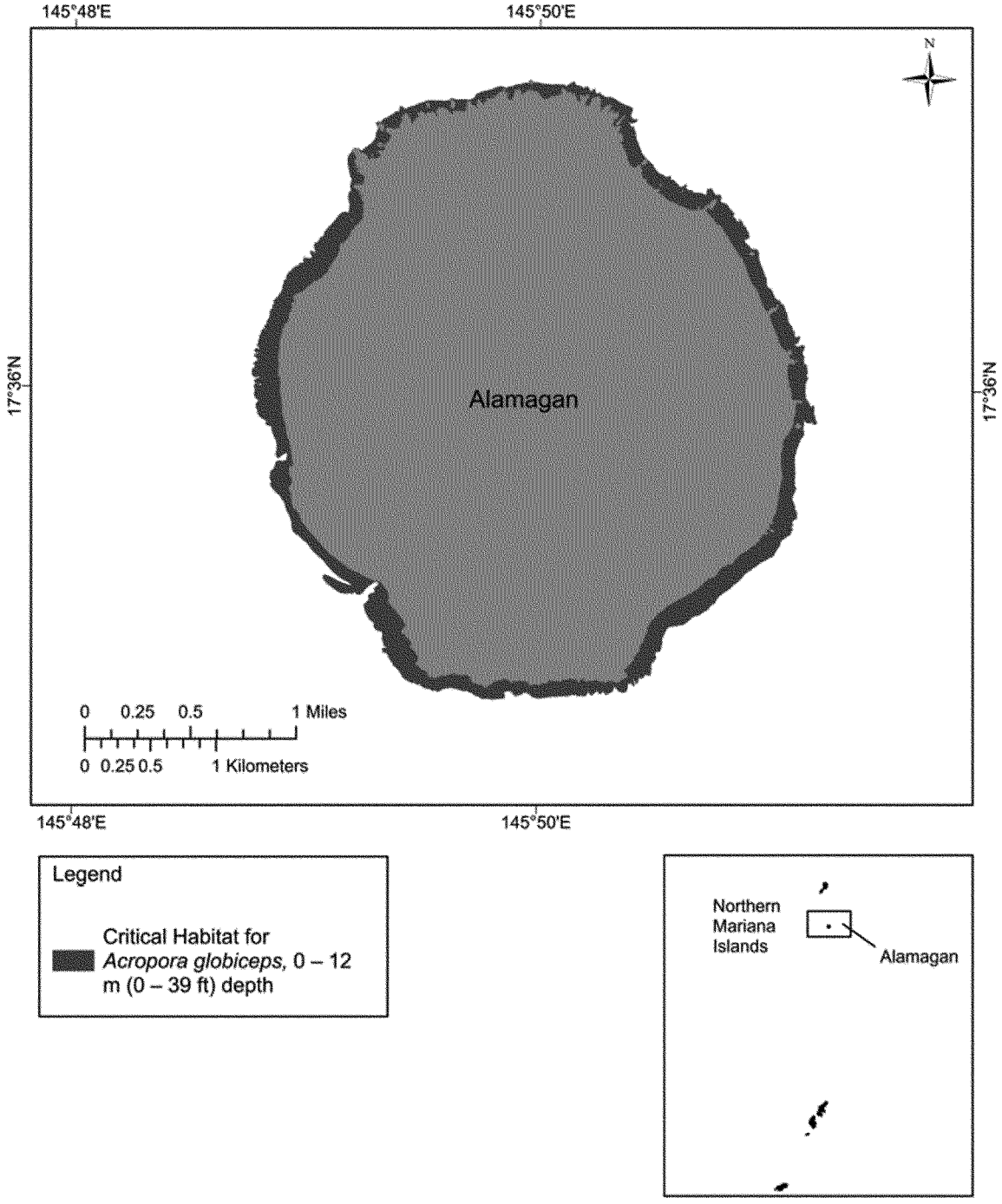


Figure 19 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Pagan.

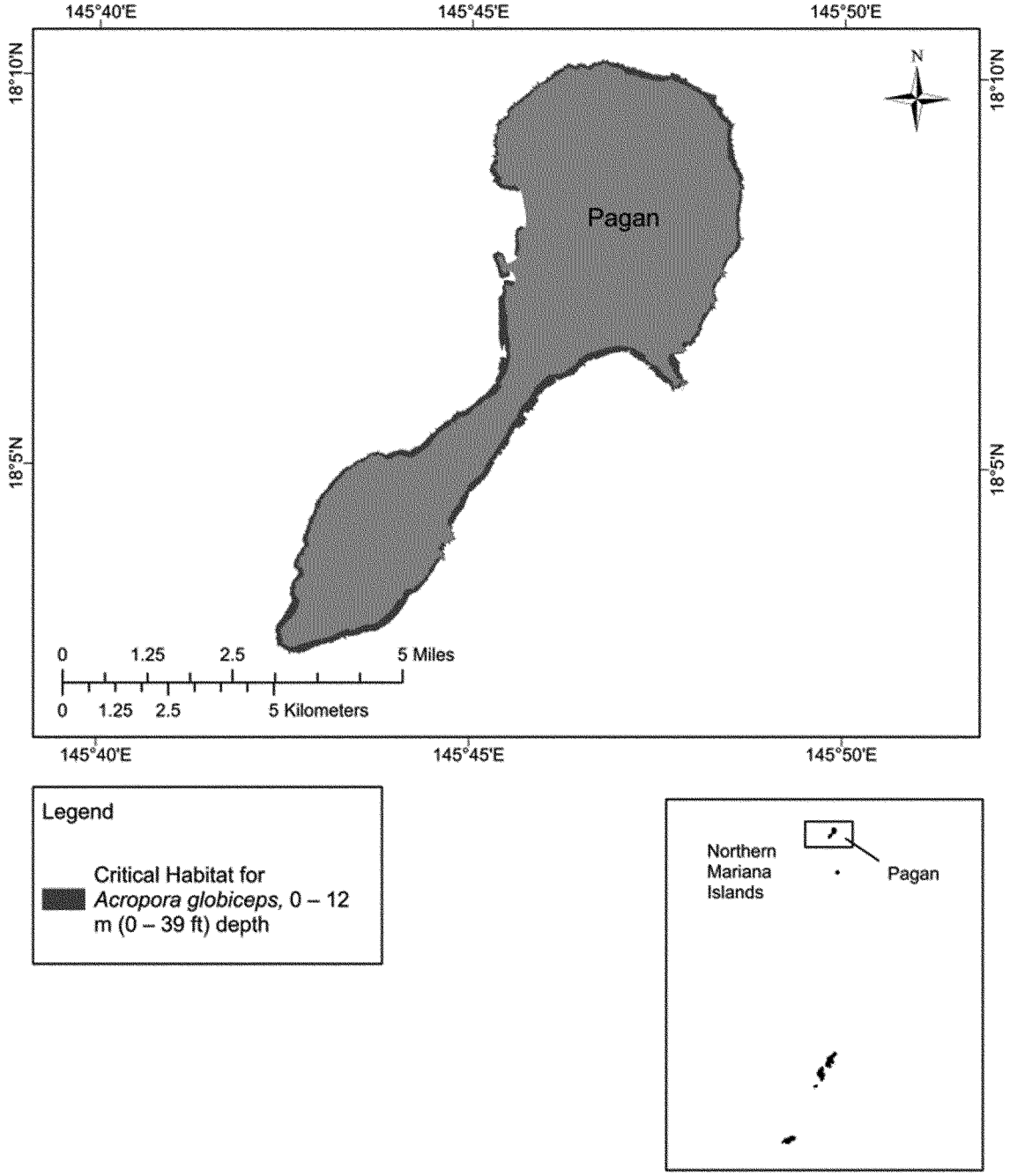


Figure 20 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Maug Islands.

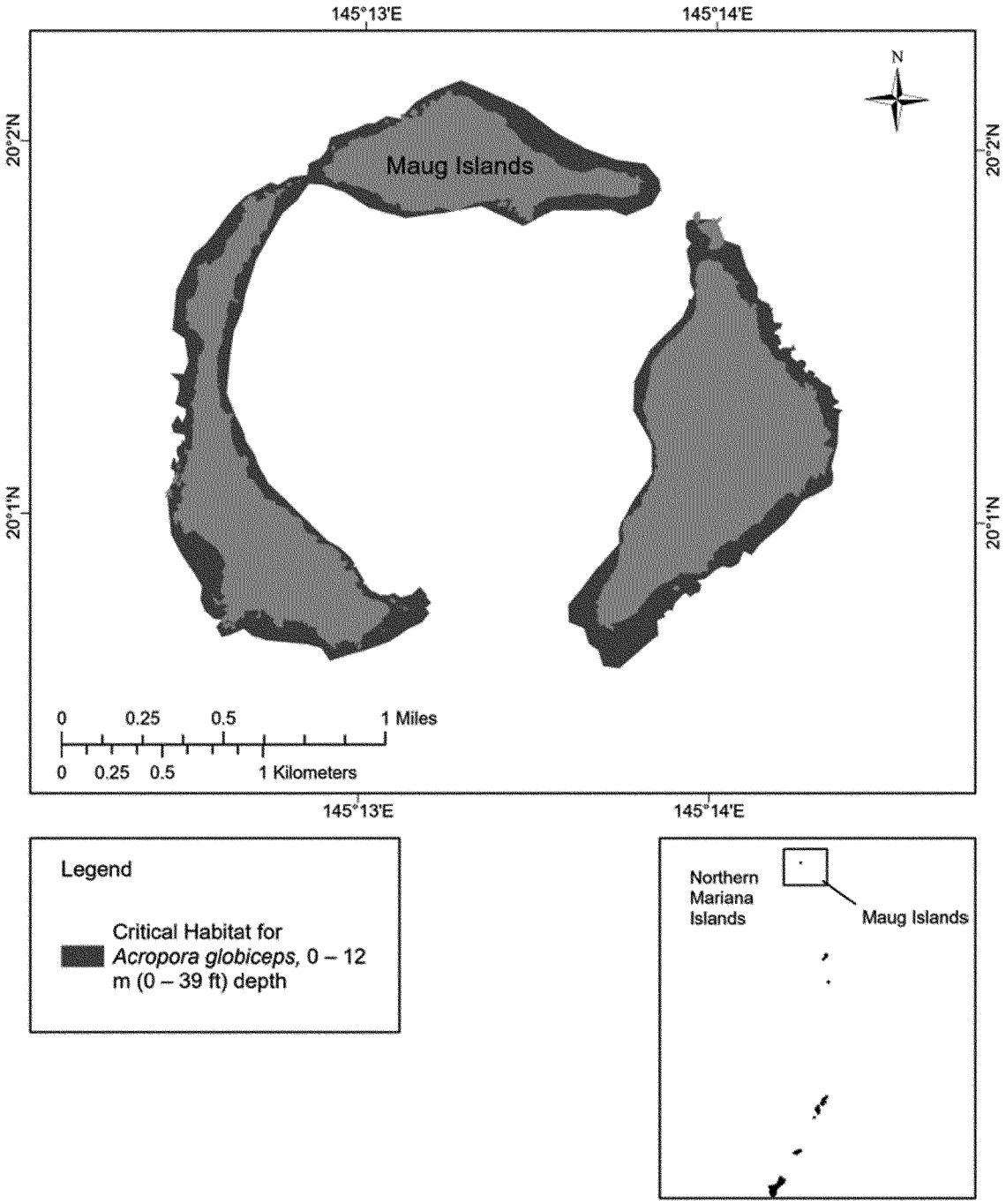


Figure 21 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Uracas.

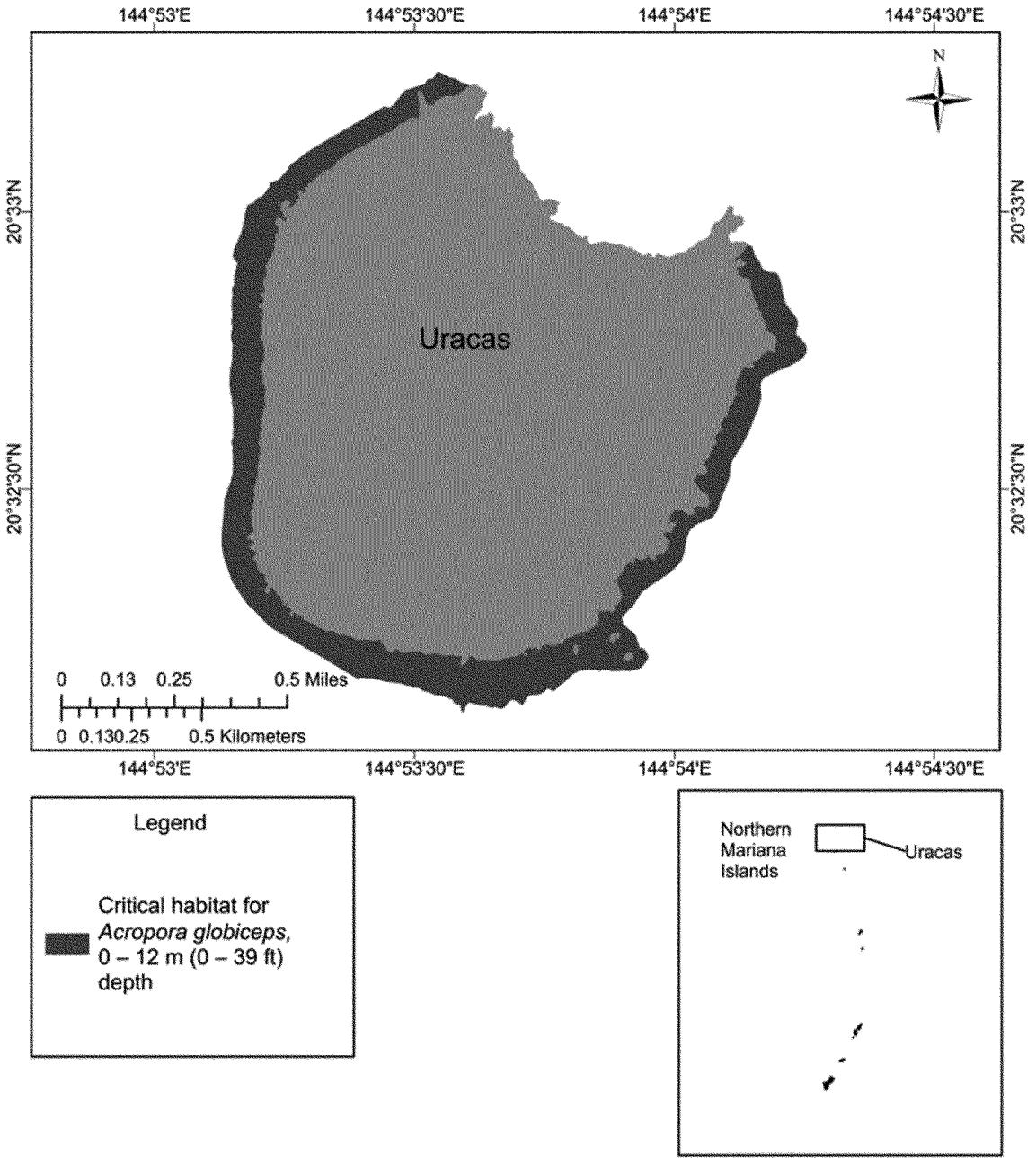


Figure 22 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, Palmyra Atoll.

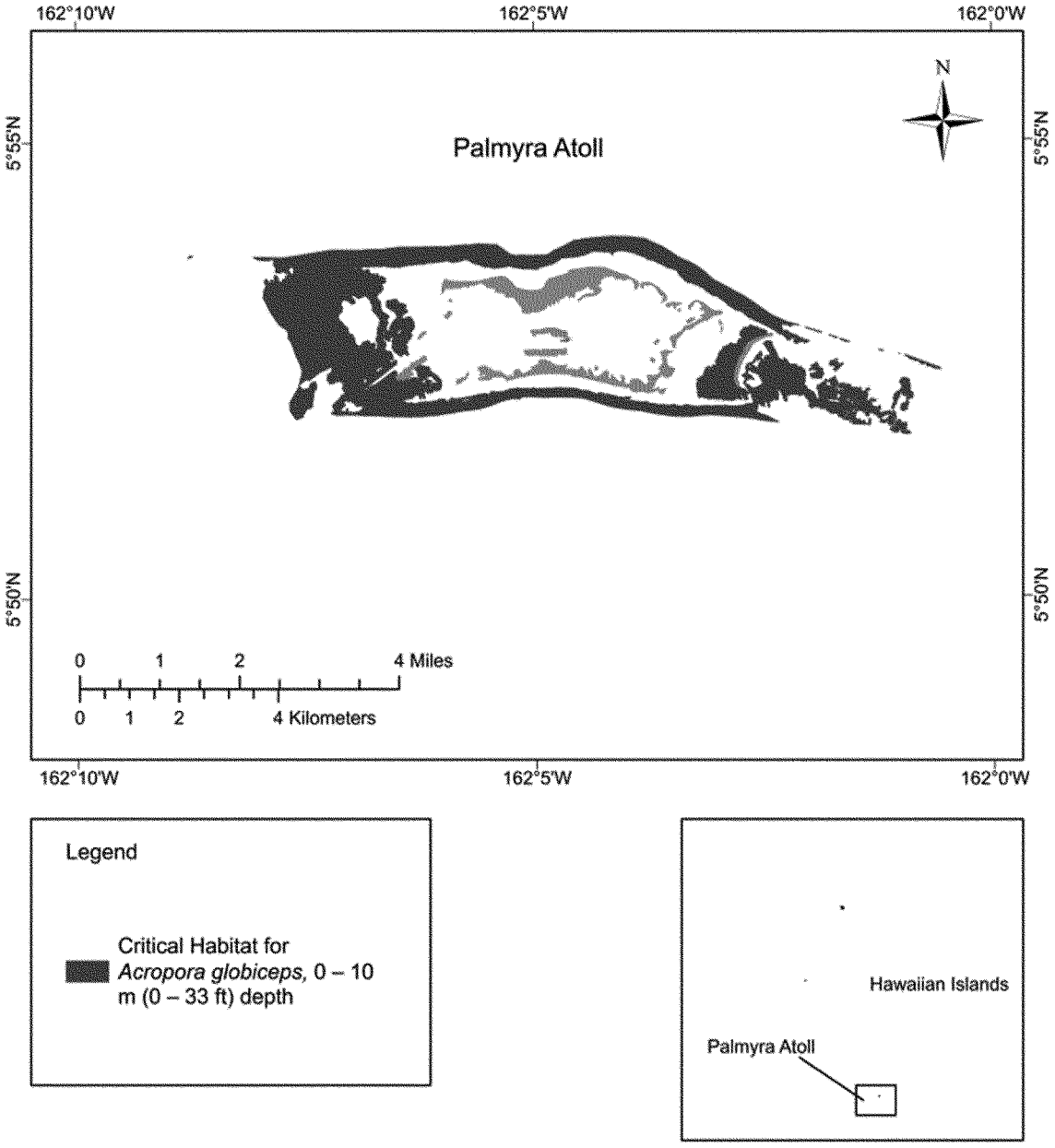


Figure 23 to paragraph (e).Proposed critical habitat for *Acropora globiceps*, Johnston Atoll.

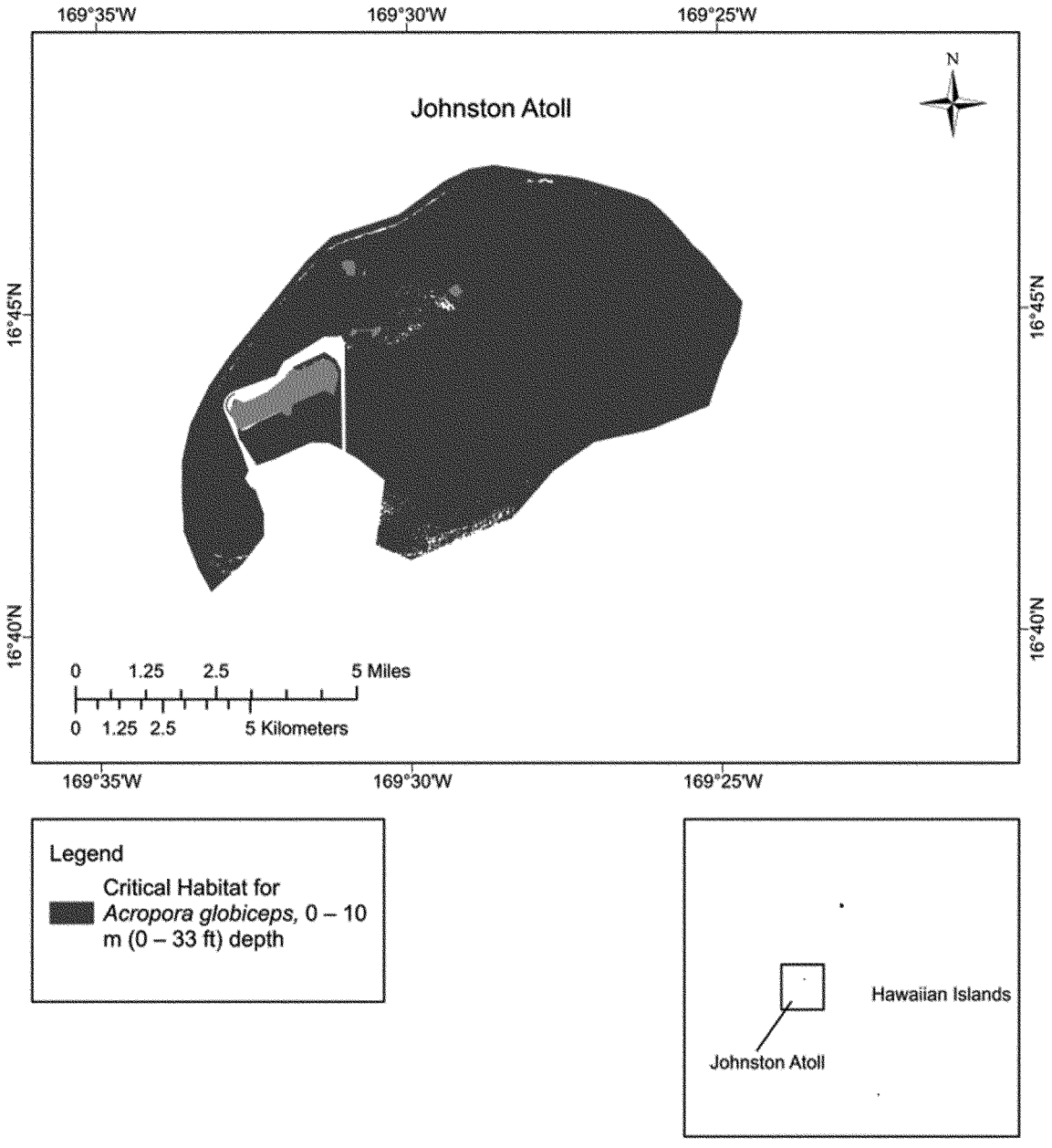
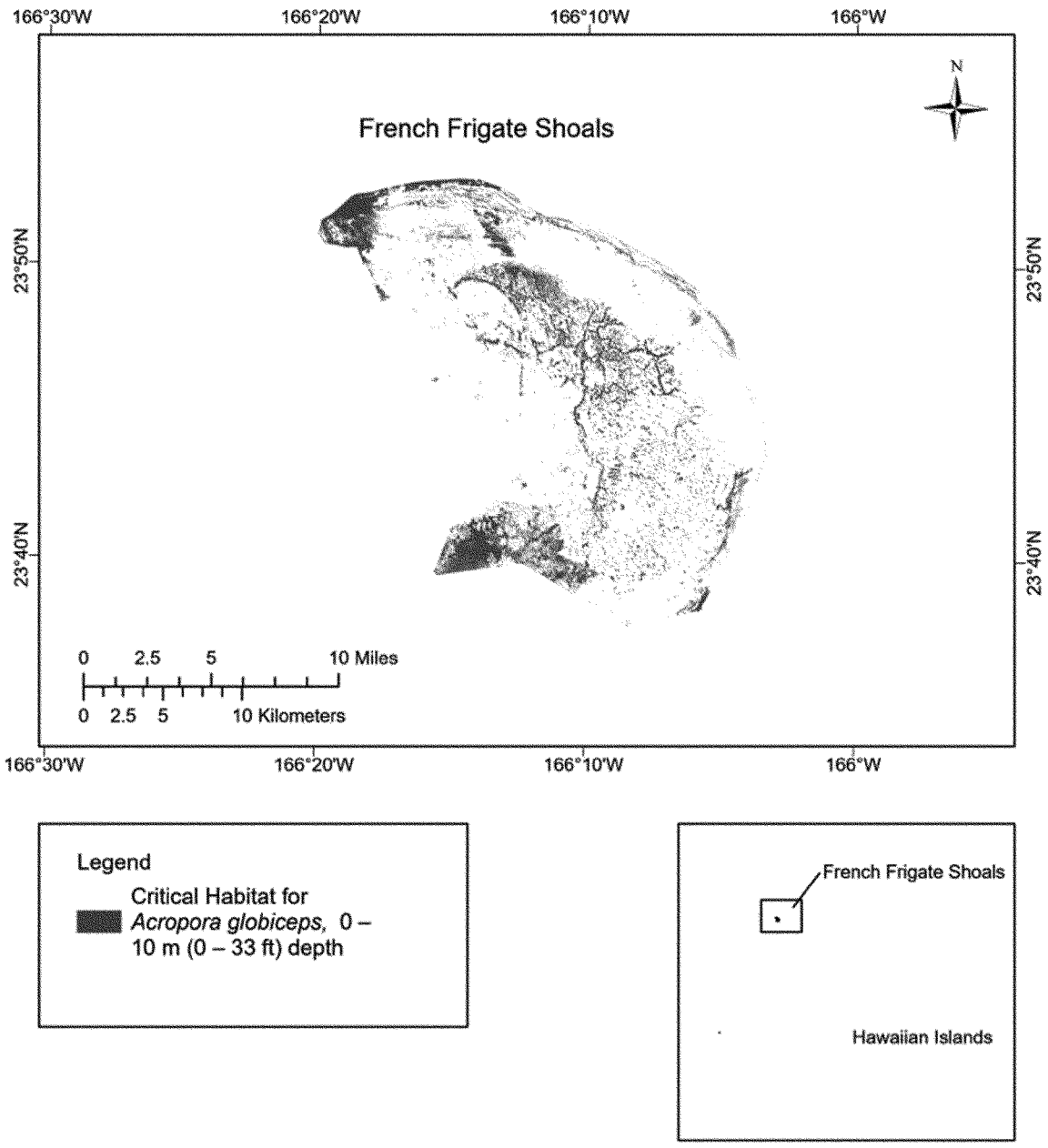


Figure 24 to paragraph (e). Proposed critical habitat for *Acropora globiceps*, French Frigate Shoals.



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